BEFORE THE UTILITY FACILITY REVIEW BOARD

In the Matter of the Petition For Review Between Rocky Mountain Power and Tooele County for Consideration By the Utility Facility Review Board.	)))))	Docket No. 10-035-39 Volume I of II

TRANSCRIPT OF HEARING PROCEEDINGS

TAKEN AT: Public Service Commission
160 East 300 South
Salt Lake City, Utah

DATE: May 10, 2010

TIME: 9:12 a.m.

REPORTED BY: Kelly L. Wilburn, CSR, RPR

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Ric Campbell (Commissioner)
Ron Allen (Commissioner)
Monette Hurtado
Mayor Joe Johnson

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WITNESSES

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EXHIBITS

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(The previous exhibits and related testimony were prefiled and are part of the Utility Facility Review Board record and filed at the Public Service Commission.)

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MAY 10, 2010 9:12 A.M.

P R O C E E D I N G S

CHAIRMAN BOYER: I'd like to first of all this morning welcome you all here this morning. This is the time and place duly noticed for a hearing before the Utah -- Utility Facility Review Board.

We five are the members of that. My name is Ted Boyer, and I'm the Chairman of the Utah Public Service Commission and also serve as Chair of this Board.

This is the hearing to talk about the proposed -- or at least a portion of the proposed transmission route through portions of Tooele County.

Before we begin -- I'm gonna take appearances of the lawyers present, but before we begin are there any preliminary matters? I understand that there's been some discussion about how to proceed schedule-wise, and maybe we can hear that first on the record.

MR. MOSCON: Sure. Thank you, Mr. Chairman. Two things. First, as far as the process for the hearing goes, Counsel have had a chance to speak. And the process that we think would make the most sense is today each side will take about 10 or 15 minutes to make a very brief kind of opening statement remarks,

just let you know how the parties plan to proceed.

Then Rocky Mountain Power will call its two witnesses to the stand today. And they will, of course, be subject to cross examination by Tooele County. And I think that's all that we intend for today.

I believe that we will finish that today, so that tomorrow we will simply have the public comment portion of the proceeding. And then on Wednesday the parties would come back. And if there was a need, either based on testimony that came in today or any of the comments in the public hearing portion, if the parties felt the need for any rebuttal, they would do it at that time.

And barring that the parties would then argue the case, so to speak, on Wednesday to the Board. Kind of summing up the evidence that's been presented. Making their, you know, case or argument as to what the law provides or what options they believe -- each party believes that this Board does or does not have.

So that is the process I think we both talked about. I also would like to raise a question or get some guidance from the Board that, again, we've both talked about. We've been made aware that the Board has retained a consultant. And we completely

understand the need for the Board to do so.

I think both sides would like to have an opportunity -- if the consultant ever provides data, information, answers, or evidence, or opinions, recommendations -- that each side have a chance to see that, perhaps in writing, and have some time frame to respond to it.

If the consultant merely is with you in case questions arise and really nothing comes up, obviously we don't need a report saying nothing came up. We just don't want to not know or have -- not have a chance to respond to any opinions offered by the consultant.

Doug, is that --

MR. HOGAN: That's correct.

MR. MOSCON: -- a fair statement?

CHAIRMAN BOYER: Okay. Thank you, Mr. Moscon. The schedule is acceptable to us, and I think that makes great sense. We'll follow the Administrative Procedures Act. Most of you -- I know at least Mr. Richards has appeared before, and Mr. Moench.

We'll take appearances. But in terms of process what we would anticipate hearing is we'll hear the opening statements first. And then we'll hear

from the first witness from Rocky Mountain Power Company.

We will then provide an opportunity for cross examination by the opponents of the proposed site. The Board members may have a question or two as well, we'll ask those questions, and then we'll provide an opportunity for redirect.

And we'll follow through the witnesses that way. And then we'll move to the opponents. And if you have witnesses, we'll hear from them in the same fashion. With an opportunity for cross examination, Board member questioning, and so on.

With respect to the consultant that has been hired, the consultant was actually hired by the Division of Public Utilities, which is a sister agency in the Department of Commerce.

And we envision -- we, at least speaking for the three Commissioners, we are not electrical engineers, nor do we have any experience in land use planning. And so he has been retained to help us with any technical questions we might have.

He may, in fact, formulate questions for us that we can ask your witnesses. It's not our intention to use his testimony or his expertise on which to base our decision. That is to say, he's not

going to be a witness in the case.

If it turns out that we do need a written report from him, we'll certainly provide you an opportunity to review it and respond to it in an appropriate fashion. We don't -- at this point don't contemplate doing that.

Is there anything further we need to talk about? Oh, we will, we will take a break about every hour and-a-half to give our good reporter an opportunity to rest, and the attorneys to collect their thoughts, and the Board members as well.

If there's nothing further, then let's take appearances for the record. Let's begin with the proponents of the transmission siting.

MR. MOSCON: Yes, thank you. Matt Moscon, from the law firm of Stoel Rives, here on behalf of Rocky Mountain Power.

MR. RICHARDS: Jeff Richards with Rocky Mountain Power.

MR. MOENCH: Mark Moench on behalf of PacifiCorp and Rocky Mountain Power.

MR. HALL: Richard Hall, from the law firm of Stoel Rives, on behalf of Rocky Mountain Power.

MR. HOGAN: Mr. Chairman, Doug Hogan, Tooele County Attorney, on behalf of Tooele County.

CHAIRMAN BOYER: Welcome Mr. Hogan.

MR. BROADHEAD: And Scott Broadhead, Tooele County Attorney's Office.

CHAIRMAN BOYER: Would you spell your name for the record, Mr. Broadhead?

MR. BROADHEAD: Yes. B-r-o-a-d-h-e-a-d.

CHAIRMAN BOYER: Okay. Well, let's begin by hearing opening statements. We'll start with Rocky Mountain Power first, and then we'll move to the County.

MR. MOSCON: Thank you, Mr. Chairman. And I'm happy to come to the podium to sit, if there's a preference of the Board.

CHAIRMAN BOYER: You're fine at counsel table. If you're comfortable there, that's fine.

MR. MOSCON: However it's easiest for the Board. Let me simply begin by thanking the Board, on behalf of my client, for their time and attention in helping us get this critical project complete. We recognize that each of you has a day job, so to speak, and that it's been not without effort on your part to be here.

We're very aware of the vast amount of data that's been provided to this Board to review, and the further information that is still being presented to

the Board. So let us begin by thanking you for your time. We realize this is not an easy task that's been given to you.

On the one hand you have my client, the power company, telling this Board that there is a particular route that is absolutely critical for it to provide power to a critical load area. And on the other hand you have Tooele County saying that it cannot live with this route.

And we recognize the difficult position that the Board is in. I'd like to chat with you for just a minute, if I can, to describe very briefly the project and the testimony that the Board will hear from Rocky Mountain Power today.

The study for this project began some five years ago. My client has spent approximately $14 million to date doing its very, very best to try and study all alternatives to plan for and site this project.

Tooele County would have this Board believe that my client simply chose the fastest, cheapest route, ignoring all other alternatives. Just looking at the bottom line and what the quickest thing to do would be. But the testimony that you'll hear today will demonstrate that these assertions or implications

are simply not true.

The project that is before the Board consists of 141 miles of line. And of those 141 miles, Rocky Mountain Power has already agreed to move or modify approximately 80 miles of that line.

So this is far from a case of a power company being unwilling to compromise, being unwilling to look at and consider alternatives. There are more miles that it has compromised on than there are remaining miles that it has not moved.

And of those approximate 60 miles that it hasn't moved, for the vast majority of those remaining miles the Company simply hasn't been asked to make any adjustment. In fact, really we are here today focussing on only a few short miles immediately behind Tooele City.

By statute, both Federal, State, industry standards, my client cannot willingly jeopardize the reliability and efficiency by which it delivers power to the many citizens who need it in order to appease some few citizens that are opposed to the route.

So we're here this week before the Board to discuss my client's need for the route, and specifically its need for the particular alignment that it sought a Conditional Use Permit from Tooele

County for.

I'd like to talk to the Board about the testimony that it will hear today. First, my client will call two live witnesses today. The first is Mr. Darrell Gerrard. Mr. Gerrard is an electrical engineer and is vice president for transmission and system planning for my client.

He personally has more than 30 years of experience in the utility business. He will speak to the Board to generally describe the needs my client has for the project. His testimony will be based on, though highly summarized, from the written testimony that he filed in this docket.

Importantly, in its response to my client's petition, Tooele County has agreed that there is a need for this project as a whole. And has even agreed that the project, including a new substation, should be located in the Tooele Valley.

Therefore, the issue of need is not before the Board at this time. That has been stipulated, if I may. Nevertheless, Mr. Gerrard's testimony, though brief, is highly important for the Board. There's really three reasons.

First, Mr. Gerrard's testimony will clarify for the Board that the specific needs of this project

drive its design. That is, by modifying any certain aspect of the design of the project you can actually undercut the very benefit that this project is designed to produce for the ratepayers across this state and across my client's entire system.

My client will also show that providing a backup path for energy delivery into the critical load area is of utmost importance as far as the design of this project goes. And that will be a critical fact that the Board will see as it deliberates this matter further.

And finally, Mr. Gerrard's testimony is critical for the Board to hear as he describes the immediacy with which the Company needs a permit to begin this project, and the consequences that would await the Company and its ratepayers across the state if the project is delayed further.

He has prepared some visuals that we will put on the screen for the Board. We also have hard copies that we can produce for the -- to have in the record. And we think that these will be important to demonstrate some of the more critical engineering aspects that go into the specific need for this project.

The other live witness that Rocky Mountain

Power will call today is Mr. Brandon Smith. Mr. Smith is an engineer, with a background in both civil and environmental engineering. And he is a project manager in the Transmission Delivery Department for Rocky Mountain Power.

Again, in summary form, Mr. Smith will describe for the Board the detailed process the Company went through in siting this project, and how the Company interacted with the Bureau of Land Management as the BLM independently analyzed this project.

He will describe not only the routes that the Company and the BLM identified as the most likely potential corridors, but how the Company met with citizen groups and community leaders and analyzed routes suggested by these groups in the efforts the Company went to try and build consensus for the project.

He will take the Board through a discussion of each of the routes in the Tooele Valley and describe the pros and cons of each route. And I think that will be extremely important for the Board to understand.

Both Mr. Smith and Gerrard are highly-qualified individuals, but it's important to

realize that they are each only a part of a much larger team. Again, five years and $14 million have gone into the study and preparation of this route by my client, and that does not count for the work that the BLM has done independently.

I'd also like to point out to the Board that, though there won't be a live witness, that one form of testimony that the Board has received and that it should consider throughout this matter is the Final Environmental Impact Statement that was prepared by the Bureau of Land Management.

I, I think the Board is fortunate in this case to have the testimony and report of a neutral third party. And it's a party with vast resources and expertise. It has conducted a detailed analysis, not only of my client's proposal but also of the alternatives that it determined should be considered.

I realize that some may be skeptical of the BLM or its motives, so I would like the Board to consider a couple of the directives given to the BLM in preparing this report. Federal -- the Federal code directing the BLM in how it was to approach this and other similar projects states that it is to, and I quote:

"Study, develop, and describe all

appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts."

It further directs the BLM to place its emphasis on, and again I quote:

"What is reasonable rather than what -- rather than on whether the proponent or applicant" -- that in this case would be Rocky Mountain Power -- "likes or is itself capable of implementing an alternative."

And it finally goes on to direct the BLM to focus on, and again I'm quoting:

"What is practical and feasible, rather than on what is simply desirable from the standpoint of the applicant."

The reason I emphasize the statute that directed the BLM in how it was to go about in adopting the Final Environmental Impact Statement is as I read it, it reminded me of the charge given to this Board.

In essence the BLM was told by Congress, Look, people and companies are going to ask you to do things on public lands. And when you are reviewing those requests we want your decision to be measured and reasoned.

The applicant will have all kinds of reasons why its project is desirable. But we, Congress, want you, the BLM, to stop and focus on practical realities. We don't want your decision based on emotion, on hyperbole, but we want it based on practicality, feasibility, and reason.

I assure you, as a Board, that tomorrow the Board will see and hear a lot of emotion and a lot of hyperbole. I do not doubt the sincerity of the people that will -- members of the public that will address the Board tomorrow.

But as it is hearing the evidence in this case, like the BLM, this Board must stop and check itself to make sure that it is acting not simply on what is desirable or undesirable. But rather that it is focused on reason, on feasibility, and on practicality.

The BLM answered the charge that it was given by the Federal Government with this Final Environmental Impact Statement. And in this document it describes analyzing not 1 but 14 separate possible corridors for this project.

The BLM is not a respecter of persons or companies. It is charged with stewardship of the federal lands. And in a project of this magnitude it

is charged with determining the route that is the environmentally-preferred route over private lands.

The BLM started its project in 2007 and finished only two weeks ago. And unlike the BLM, which had three years and a team of contractors and experts at its disposal, this Board is given only 45 days to make its decision.

Tooele would ask you to ignore the five years of study by my client, and the three years of study by the Bureau of Land Management, and to superimpose other implied or suggested ideas as to what is better for the environment.

I would urge the Board to be cautious in doing so. And as it hears the evidence in this case to again focus on is that something that is merely desired, or is that something that is reasonable, and practical, and feasible for the state as a whole.

Furthermore, some of the witness -- or the evidence this Board will hear will again come from the concerned citizen group. I would suggest to the Board that each and every suggestion or complaint that the Board will hear from that group has been analyzed and addressed in the Environmental Impact Statement.

Concerns about water, view, wildlife, the environment, electromagnetic fields. Any number of

things that the citizens, again with deep sincerity, will put forth to the Board as being a concern for them is something that has already undergone great and detailed analysis.

Again, as this Board hears the calls from Tooele over the next few days to ignore the years of study that the BLM independently did, that my client independently did, we would simply ask the Board to consider: Is this what is merely desirable for a few, or is this what is practically and reasonably the best solution for the state as a whole and what is feasible for all? Thank you.

CHAIRMAN BOYER: Thank you.

Let's hear now from those opposing the proposed siting. Mr. Hogan?

MR. HOGAN: Mr. Chairman, thank you very much. On behalf of the residents of Tooele County and on behalf of Tooele County proper we'd like to thank the Board for taking the time to -- and the assistance you'll provide in deciding the Mona-Oquirrh project.

Having read the notice -- the amended notice of this procedure and this hearing I would like to thank you for the time you've already spent in preparation to consider this issue.

I understand that many members have already

had site visits. Have already went out and looked to see the lay of the land firsthand, and we thank you for that. We think that's critical in determining this issue and in reaching the decision that you'll be asked to make.

This Board, although the Chairman mentioned at the start is not composed of electrical engineers, it is unique in its composition. And I think that you would acknowledge that when it comes to dealing with electrical issues, transmission issues, and the big picture for a power system, this Board certainly has more information, expertise, and knowledge than a local Planning and Zoning Board.

That's not to diminish the capabilities of the people that serve on the Tooele County Planning and Zoning. It's just and acknowledgment that this is the issue that's on the forefront of your minds every day.

As I'm sure you've already read in the response that Tooele County filed, Tooele County does not dispute the need for this project. In fact, to my knowledge, no one officially has spoken against the project based on need alone. Tooele County certainly wants to have an electrical delivery system that's safe, that's reliable, that's adequate, and efficient.

Tooele County's objection to this project is based entirely upon the route applied for by Rocky Mountain Power. I understand that most of you have made site visits to the county. And I'm sure that interring -- in touring the southeast bench area and looking at the route that's been proposed that they've applied for, you've noticed and now have a better appreciation for the objections that the residents in the county have raised.

I think for most Tooele County residences it's as simple as this: On one hand consider the pristine beauty of the southeast bench area, the wildlife, the vegetation. Its proximity to Tooele City, which contains the bulk of the county's residents.

The high recreational value of the mountain lands that exists, and the importance of the watershed. The cultural significance of the uninterrupted mountain view and the open space that's provided to the residents that live there. You have that on one hand.

On the other hand consider the I-80 Corridor from Lake Point to the Stansbury Mountains. View in your mind that area as you get just past the westernmost Grantsville exit. You'll notice major

linear facilities that have already been constructed. There's Interstate 80, the railroad.

There are right-of-ways that presently exist that vary between 300 and 500 feet all the way along from Lake Point to the Stansbury Mountains. The area lacks residences in close proximity to it. There is a lack of wildlife and vegetation.

In terms of safety and fire hazard, there's no fuel. There's nothing to burn out there. The area already has the look and feel of an industrial area where you would site a high-voltage transmission line. For county residents, it's just that simple.

You've got these two extreme views. And both of these routes and everything in between is contained within Rocky Mountain's petition and the BLM has analyzed. County -- the County and its residents just cannot understand how Rocky Mountain Power, with these two disparate positions, selected the southeast bench route as the preferred route and applied for a permit for that route.

There are other alternative routes discussed in Rocky Mountain's petition. And there were numerous routes and variations of those routes that were discussed with the County informally. Which route is actually the best route? That really depends on how

you evaluate and weigh the relevant criteria.

In this case I mentioned the four factors: Safety, reliability, adequacy, and efficiency. That is where Tooele County is deficient in our ability to do that. And that's where all the controversy lies. Rocky Mountain Power has evaluated these factors, and now they claim the BLM has also evaluated these factors and agrees with the Company.

You can understand that there's a healthy amount of skepticism, when it comes to local residents, saying trust the Federal Government. You witnessed that in this last legislative session with the numerous bills that ran through our state legislature.

I don't think anyone that was elected to represent citizens in the State of Utah feels that Trust the Federal Government is the maxim they should abide by.

The local jurisdictions in this case -- Tooele County, Tooele City, and Grantsville City -- unanimously support a route that utilizes the I-80 Corridor for this project. However, as local jurisdictions, neither Tooele County, Tooele City, nor Grantsville City is in the power business. It's not what we do.

We readily acknowledge that siting high-voltage transmission lines is an area that we have no expertise.

Rocky Mountain Power has indicated they've spent several years and over $14 million in siting this particular route. And they've agreed that the BLM now, through their Final Environmental Impact Statement has agreed with their route choice.

Let me tell you -- and I don't think I'll be the first one to tell you this -- an Environmental Impact Statement is not the multi-million-dollar document that tells you you can't do the project. An EIS is the multi-million-dollar document that tells you, and tells the project proponent, exactly how to do the project they want to do from day one. That's what that document is.

Tooele County disagrees with how Rocky Mountain Power, and in this case how BLM, evaluated the safety, reliability, adequacy, and efficiency of the routes considered. And Tooele County lacks the funds and the expertise, and therefore the ability, to effectively negotiate with, persuade, or otherwise convince Rocky Mountain Power to change course.

This Board has everything that Tooele County lacks, including most importantly the statutory

authority to determine the siting for this route.

Again, I want to emphasize that Tooele County is not opposed to the project. In fact, based upon the comments made by the Tooele County Planning and Zoning Commission, we would not be appearing before you today had Rocky Mountain Power applied for either of the Grantsville routes that they detail in their petition because the County would have approved the permit for either of those routes.

I feel it important to point out that even if the Board members -- even if this Board orders Tooele County to approve the route that's been applied for by Rocky Mountain Power for the southeast bench, Rocky Mountain Power will be choosing to pursue a course that still leaves two major questions unanswered.

That is, true actual cost. And this Board is charged with determining what the standard cost is. And I'm telling you that if you order that route to be approved we don't know what that cost is gonna be. And we don't know when it will be built.

This is because, in addition to the added cost and delay associated with the challenge to the condemnation proceeding that Tooele City has indicated will come -- and you have a letter that details that from Tooele City -- Tooele City has spent millions of

dollars acquiring property for open space, viewshed, and watershed protection. They intend to challenge that condemnation proceeding.

In addition to that, there will likely be challenges to the federal document, to the federal EIS that was completed by the BLM. And we all know, are all aware of the sort of delays, and challenges, and legal costs that accrue when there is a challenge to a federal Environmental Impact Statement.

So the true cost of this route is not simply going to be construction costs plus the right-of-way acquisition. You're gonna have to add those other costs in. We don't know what they are, and we don't know when they'll end.

The challenge in getting power from a rural remote location like Mona, where it's readily available, to an urbanized populated area like Oquirrh, where it's needed, is always in those last few miles because that's where the people are.

There's no problem maintaining a remote route for the majority of this line. And I don't know the percentage. We're probably talking about less than five percent of the length of the route when we're talking about the part that's in controversy.

But that part necessarily always comes at the

end, because you're finally getting the power to where the people are. And you're gonna have conflict. And it's gonna be a tough choice. And those four factors that you're required to evaluate, there's gonna be give and take on all those in determining which route is the best route.

Tooele County needs the assistance of this Board to decide this route, and that's what we're asking for. And we appreciate your time and consideration. Thank you.

CHAIRMAN BOYER: Thank you, Mr. Hogan.

All right, let's proceed now with the first witness.

MR. MOSCON: Thank you. We will call first Mr. Darrell Gerrard.

CHAIRMAN BOYER: Mr. Gerrard, would you please remain standing and raise your right hand? We'll swear you in.

(Mr. Gerrard was sworn.)

CHAIRMAN BOYER: Thank you, please be seated.

MR. MOSCON: It will be a moment as the projector warms up. If it's the Board's pleasure I'm happy to dim one or more lights. If the Board can see the screen, I'll leave it as is. It's your discretion, Mr. Chairman.

CHAIRMAN BOYER: I think it's fine with the existing lighting, thank you.

MR. MOSCON: The document that I've handed to the Board and to Counsel is simply a hard copy of the slides that Mr. Gerrard will be going through. Some of the slides are actually animated on the screen. And we can't do the animation on hard print, but as far as the record goes that's the final point of each of the slides.

With the Board's permission, we'll proceed.

CHAIRMAN BOYER: Please do.

DARRELL GERRARD,

called as a witness, having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MOSCON:

Q. Mr. Gerrard, would you please state your name and address for the record?

A. Yes. Good morning. My name is Darrell Gerrard. And I work at 925 Northeast Multnomah Boulevard, Portland, Oregon. And I also have an office here in Salt Lake at our North Temple office, 1407 West North Temple. I've had that office for -- approximately 1992.

Q. And would you please briefly describe your

education and professional background for the Board?

A. Certainly. Can you hear that okay? I have a Bachelor's, Bachelor's Degree in Electrical Engineering from the University of Utah, right here in Salt Lake. My specialty is electric power system engineering and design.

I have more than 30 years experience in the -- primarily in the utility industry. I've had a number of jobs at PacifiCorp here. All around transmission, distribution, substation design, including electronic communications and generation engineering.

The last ten years I've held executive positions for PacifiCorp and Rocky Mountain Power in various aspects: Vice president of engineering, asset management, construction. And from 2000 to 2006 I was vice president of transmission systems. Responsible for all the assets -- transmission assets that PacifiCorp owns and operates, including our grid operation center.

Since 2006 I've been -- I was kind of hand selected, with my background, to work on the planning for the next two decades of our transmission system expansion for our company. So I've been doing that since about 2006. And I'm the architect of our

Gateway project, which we'll talk about a little more.

Q. Mr. Gerrard could you please describe for the Board, as a point to begin, Rocky Mountain Power's current transmission system in Utah?

A. Certainly. I've prepared a number of exhibits today. In my experience over the years I've found that a picture is worth a lot of words, so I'd like to use a couple of these if I may. And these -- you have these in your handouts as well.

This first exhibit I thought was instructive to help the Board understand the current transmission system serving the state. And I depicted all the major transmission paths, or transmission freeways some people call them, that serve the state.

Those blue lines that you see there? There are seven transmission paths that allow import and export of energy into the, into the state. Let me use my other pointer here, I think it's a little stronger. So I'm talking about these lines here, which are the major transmission paths.

The total customer demand for the state, just to size this for the Board a little bit, 2007 was about 5,500 megawatts, 5.5 gigawatts in the state. By 2013 our forecasts are expected to be around 6,400 megawatts, about 6.4 gigawatts.

And I also wanted to point out that the major resources that serve the State of Utah are located down around in this area. Carbon -- or in the Emery-Hunter area, as you well know. Most of you. Also out here in Wyoming, where we have our Bridger, Wyodak, and DJ system are brought into the state for these major transmission paths.

So that will be important a little bit later on to make sure it's understood where the resources are coming from. I have also listed on here what I've called the "critical load area," which we'll talk about I think quite a bit this morning.

And I've coined the phrase "critical load" because there's some critical things going on here. One, it's of course the largest urban metropolitan area in the state. It's also one of our highest growth areas in the state. Southwest Utah, at times, might be a little higher.

And the other part that's critical is our ability to import into that bubble, if you will, that red perimeter that I've driven -- that I've shown there, is limited. And it's significantly limited.

The other thing I wanted to point is not only our existing resources to serve the state as it sits today, but through our integrated resource -- our

Integrated Resource Plan which we look -- a forward-looking plan to deliver resources into the future, all of our new resources to serve the growing loads in the critical area and in the state are scheduled to be located down in this area.

One other last point I'd like to make here, and then I'll move on. The critical load area is approximately 80 percent of the entire load in the State of Utah, depending on which year you pick. I calculated in 2007 it was 80 percent.

Q. Thank you, Mr. Gerrard. Could you describe for the Company why -- or excuse me, describe for the Board why the Company is so concerned with transmission planning. And if you can, do you have a future transmission development plan that the Company is working on? Describe that for the Board as well.

A. Yes, certainly I will. As an essential service provider -- which Rocky Mountain Power is one -- it's key that we have a short-term and a long-term plan. And when I talk about short term and long term today, in my planning view short term is less than ten years and long term is more than ten years. Ten to 20-plus years. I want to say that just to qualify that.

So it's prudent that we have a plan, being a

essential service provider. The other reason we need a long-range plan, core plan, is our customers want to know. Our wholesale customers, our residential customers, and our third-party customers that use our system on an open-access basis, they want to know if we'll have an adequate supply of energy. So we need that plan for that.

We also need to make sure we have a plan that ensures we can access our lowest-cost resources looking forward. And our transmission plan that Rocky Mountain Power has is key to our Integrated Resource Plan and formative to that.

The other reason we need a plan is that our obligation to serve, as I call it, in our six states where we are the energy supplier, under regulation requires us to plan ahead to meet the needs of our customers. You've heard the words safe, reliable, adequate, and efficient service?

And also under our Open Access Tariff, where we are licensed by FERC to provide transmission services, requires us to plan accordingly. Also the Open Access Tariff requires us to provide transmission services to others that ask, other than our own customers. It's open access. If people want transmission, we are obligated to deliver it at their

cost.

The other reason that I think our plan is so important is we deal with State agencies, whether it's our governor's offices or our commissions. Our officers and presidents of our business units have to have ability to cover a plan how we're going to serve our citizens in the state.

Another reason is -- for a plan is our dealings with agencies like BLM, Forest Service, Department of Fish and Wildlife, all want to know what our long-range plans are for land use planning our precious resources.

And the last one I would say is that our plan is required by the Department of Energy, Department of Interior, and NERC, and FERC, who regulate. That's the North American Electric Reliability Council, and the Federal Energy Reg -- Regulatory Commission. And even Homeland Security wants to see our transmission plans. And we do file those with NERC annually.

Q. Thanks, Mr. Gerrard. You've given us a lot of detail on why it's so critical for the Company to plan in the future for these systems. Could you describe for the Board how the project that we're here to discuss today, how it ties into that, that larger plan?

A. Yes, certainly. I'd like to use another exhibit as I do that. And you should have that in front of you to look at. This is our Energy Gateway project that I mentioned prior. I'd like to talk just a little bit about this project and how the segment or the transmission project that this proceeding fits in.

This is a long, a long-range transmission project that we've developed. It's expected to be about 6.2, or around 6 billion dollars over 10 to 12 years. We started this project -- actually I started this project for our company back in 2005.

We announced it in May of 2007. We started construction in 2009. And we're just finishing placing in service a Segment B up here, which I'll show you. Segment B is right there between our Downey, Idaho and our Terminal Substation in Salt Lake City. Is going into service.

So we've executed on our plan, and the segment we're talking about today is the next step in that. Quickly -- and I'll speed up here a little bit -- is to talk about the attributes. Because as someone mentioned earlier, I think, on an electric grid system the, the security, reliability, and performance of the grid is only as good as the sum of its parts. And this segment is one of those parts.

I've designed -- our company has designed the Energy Gateway concept to provide certain attributes, which I'd like to cover. It's a concept of large loads and resource hubs. By that I mean big load centers, like Salt Lake. Big resource areas, like Mona, like Hemingway, and Idaho.

And all those resource -- excuse me, loads and resource hubs connected by spokes. And by "spokes" what I mean is large-scale high-capacity transmission systems, at least three lines, connected to a hub.

As you see on your handouts or you can see on the screen, all the yellow dots constitute new hubs that we're proposing where large amounts of energy either come onto the grid or come off of the grid. And again, they're connected by large, high-capacity, highly-reliable transmission connections.

Second, Gateway was designed for options for IRP. And I mentioned that earlier. That this, this Energy Gateway project is key and is formative to our Integrated Resource Plan. In fact, it's required for -- it's required to be built for our company to deliver the Integrated Resource Plan that we have published currently, and those that will be done in the future.

The other attribute is it connects to markets. I think you can see down here, Gateway ties to Nevada, Arizona, it ties over here to the west, it ties to Populus, and it ties to Wyoming. That gives us options to purchase energy in favorable conditions and sell energy in favorable conditions, all for the benefits of our customers.

The other attribute that we had to accomplish or wanted to accomplish with Gateway is it ties our two control areas together. I won't get deep in the control areas, but our company owns and operates two balancing, balancing areas, one in the northwest, one in the east, where we balance our customers' demand with the generation instantaneously.

This project ties those two balancing areas together. And our customers enjoy benefits of using capacity or energy in both of those at lowest cost. There are eight segments to Gateway. There's -- I won't go through them all, but there's Gateway South there's Gateway West, and there's Gateway Central, which is the piece that we're talking about today.

And the project that we're talking about here is Segment C, which connects Mona up to Limber, to Terminal -- or excuse me, to Oquirrh, and to Terminal. The project I talked about before, project -- or

Segment B is our Populus to Terminal project, which is nearing completion.

The other requirement -- I talked about high capacity, high reliability. I won't go into that any further. The other requirement here is this project has to meet the North American Electric Reliability Council's standards for reliability of bulk transmission systems.

In May of 2007 there were over 100 new reliability standards that were passed into Federal law. And those dictate how we build, construct, own, and operate our transmission system. And this project meets those.

The other thing I would like to point out to the Board, and it's key in our discussion today, is what I've coined the term "reliability triangle." And this is very important. We'll cover it just a little bit more. Where we have a triangle built with basically a 500 kV ring around Salt Lake City and into Wyoming. This will be the first 500 kV facility built in the States of Wyoming and in Utah.

This reliability triangle is very important, as it provides the reliability aspects of the project. So each, each of these legs can back each other up in the event of an outage or an emergency.

The other thing I would like to point out in the triangle is the requirement for diverse -- that means geographically diverse -- line routing. This minimizes the exposure of our power lines to common-mode outages. Or outages that would cause both lines, or both -- any two lengths of these to go out simultaneously.

And I'll show you in a moment. We applied that same concept to the project we're talking about here in Utah on a smaller scale, with the same concept.

And again, in closure, Segment C is key to this, as -- if Gateway Central is not contiguous between Populus and Mona, the project is compromised, as we don't get the capacity out of Gateway West and Gateway South.

Gateway Central in the center provides a backup by tying those two legs together. With those two legs tied together we can operate our system at a higher capacity than if it wasn't there.

Q. Thanks, Darrell. Could you -- whoops. Thank you, Mr. Gerrard. Could you briefly, and at a high level, describe for the Board then how the Energy Gateway concept functions, the reliability that's it's designed to introduce into this system, and how this

segment that we're here to discuss today ties into that overall system reliability?

A. Yes, certainly. Let me use another exhibit for that. And you have this in front of you. I want to talk a little bit about the reliability triangle, because it, it talks about separation and it talks about redundancy.

And the transmission system reliability standards are all about redundancy. That's how the system stays robust and stays in service. Before I do that, though, I wanted to show you in this first slide, I wanted to scale this Gateway project just in size to give this Board an idea of the size and capacity of these projects.

Now, when I say "size" I'm not really talking about physical size, although they are large. I'm talking about the ability of this project to move energy. Because it's larger than anything that's been built before in our service area.

These arrows that you see here are the existing transmission paths that exist today in Wyoming, Utah, Colorado, Idaho, and Nevada. And our Energy Gateway -- if you look at the connection over here, this connection that goes into Dakotas? Our Energy Gateway Project is 19 times the capacity of

that existing route. That's the scale going west.

If you look at our current com -- our current transmission capacity into Montana? Where we have electrical lines between Wyoming and Man -- Montana? The Energy Gateway Project is 15 times larger than that existing transmission path.

And our -- this arrow in the middle here that comes out of the southwest corner of Wyoming and into Ben Lomond area near Ogden, Utah? Our Gateway project is seven times bigger than that current transmission path.

Our Bridger West system, which ties our Bridger power plant into Idaho -- into Downy, Idaho, is our largest transmission path that we have in our company. It's a 2,200-megawatt path by itself. And Energy Gateway is 3 times larger than that path when it's complete.

The last one that I'll talk about is the tie down to the Desert Southwest. Our Gateway is 20 times bigger than that electrical connection today. The reason I share that with the Board is what we're building here has a lot of benefits to our customers for that capacity and for that ability to move energy.

It also can have a huge impact on how it integrates with the wider electric grid that connects

all these states. So if it's not constructed, designed, and operated properly, we can expose the western interconnection to significant disturbances. So this is, this is not a small transmission project. This is very large. I just wanted to scale that for you.

In the next slide what I'd like to demonstrate is under normal operations our Gateway project moves energy around that triangle. With all the elements in service, all the lines in service, we'll be able to move thousands of megawatts across those lines, through diverse routes, to load centers and hubs connected to those load centers.

There are standards out there that exist. The Transmission Planning Standards I quote on page 15 of my testimony tell me as a system planner, tell our company as a system operator, the limits and the performance requirements that are required when all the elements are in service.

That's how it looks. Large amounts of power flowing in a triangle.

The next slide, if you would turn to that one. I've dashed out part of Gateway West. So if you see the dashed line up on the screen here, I've depicted that to show a line either taken out of

service for maintenance, forced out of service due to some external cause, mother nature, an outage of that.

So the power that was flowing on that dashed line prior to it going out of service now has to redistribute. So in this example I've used 3,000 megawatts. That 3,000 megawatts has to redistribute around the network.

And it does, it does so by flowing down Gateway West and flowing on top of or through the existing system that's there today that it's interconnected with.

The reliability standards that I talked about a moment ago, Transmission Standard 2 tells me as a utility planner that I have to, I have to build a system that can operate with one of those legs out, or one of those transmission lines out of service, and have no disruption of customer load or no disruption of connected generation.

So that's the contingency that -- that's one of the contingencies that I have to plan for. This accomplishes just that.

I'd like to turn to the next slide, which is a little bit redundant, but illustrative of why we need the triangle. Again, I've shown a dashed line, this is our Gateway South project now.

Should that line be forced out of service the energy that was flowing on that line can now redistribute, flow down Gateway West, flow in our interconnected system, and we still have hubs and resource -- loads and resource hubs still connected. And our customers remain in service, and probably wouldn't notice anything different.

The next slide is the scenario we're trying to avoid with Gateway and with our Mona-Oquirrh project, where we would have both of these lines in proximity where a common-mode outage or failure could take both lines out of service simultaneously.

In this event, all the energy that's flowing on those lines can't go anywhere, other than on the existing system, which is already limited and already is out of capacity.

So in this event, should both of those lines be co-located and we have a common-mode failure, in this event we would have about 6,000 gen -- 6,000 megawatts of generation curtailed. And we would be deficit to serve customers by about 2,000 megawatts.

So that would be curtailment of about half the load in the critical load area, just to size that up for you. So as a utility planner, geographically-

dispersed line routes and line separation is key for me to maintain reliability.

I would also point out while we're on this slide that the lines we're talking about between Limber and Oquirrh and Limber and Terminal have the same capacity of these large Gateway lines. They're equivalent in their ability to move energy.

Q. Thanks, Darrell. Could you describe for the Board -- and you've set up and described this triangle of reliability, and you talked about diverse line routing. Could I have you focus in specifically on the area that is in dispute in Tooele Valley and talk about how that triangle of reliability ties in to the portion of the project in Tooele Valley?

A. Certainly. Let me use one of our exhibits out of -- I believe Mr. Smith has this in his testimony somewhere, but I've used that for today. The triangle of reliability concept has also been applied to this project between our Mona Substation down here, our Limber Substation here, our Oquirrh Substation here, and back down Mona.

Although not as elegantly drawn, there is still a triangle of reliability here, with large resource hubs. Mona is a large resource hub, probably the largest in the state. A large future-load hub,

which is at Limber. And existing hubs here at Oquirrh and at Camp Williams.

So again we have a triangle of reliability, which provides me this benefit. Remember, the standards tell me as a utility planner that if I lose this new segment over here, this segment is forced out of service either for maintenance or for external cause, I have to still be able to serve my customers and keep my generation online without interruption.

It also -- this segment -- so when this segment is complete, it backs up this existing segment here that exists today -- my pointer is not working exactly -- between Camp Williams and Oquirrh. Should that segment go out, I still have a continuous path between these load centers and resource centers.

The purpose -- this Segment 1 here also -- Mona-Oquirrh -- provides backup to this existing segment right here between Mona and Camp Williams. So the reliability triangle exists here.

Further, the reliability triangle up north here between Limber and Oquirrh, up to Terminal, and back to Limber, again is a reliability triangle. In any event where I lose -- have an outage of Segment 2 or Segment 3, I have to be able to serve my customers without interruption. Keep my generation online.

That's the standard I'm held to.

So should these two lines -- that's the reason for the geographic separation that we've requested. Should these two lines be co-located and subject to common-mode, common-mode failures, common outages, I no longer have the ability of this line between Limber and Mona to back up these existing facilities that are there today.

When that happens I do not get the full capacity out of Gateway because I can't have my triangle contiguous through the project.

So basically what I've done is supplied the same reliability triangle. Again, large-capacity lines connecting hubs and resources both in the triangle here, the triangle down here between Mona.

What's not shown in the map, but I'll explain it very quickly, we also have a triangle over here. Where our lines from Camp Williams near the Point of the Mountain go over to our 90th South Substation, up to Mid Valley, and back to Terminal. There's a triangle over here as well.

Q. Darrell, I'm sure you understand that the part of the project that is really in dispute is this part up here. We have this triangle within a triangle?

Is that really necessary? Is it redundant to the Company to have that triangle? Is that -- can you describe to the Board whether that is critical to the project as a whole? You've described this larger Gateway project, is that necessary to the larger project?

A. Yes, absolutely. From the -- from two standpoints. It's necessary -- this redundancy that these two lines provide is necessary for the Energy Gateway Project because it ties Gateway South, which terminates at Mona -- if you can recall the drawing I had a moment ago -- and it terminates it at Terminal, excuse me. Gateway West terminates at Terminal.

So this, this path right here provides a redundant high-capacity path along Gateway Central for Gateway West -- it ties together Gateway West and Gateway South.

The other reason it's required is it also provides a backup to Limber Substation in Tooele County. So in the event that these lines are out of service, 2 or 3, Limber Substation still stays in service, and our loads are still served, and our generation is still online.

So it not only provides local redundancy to this -- to the critical load area, but it also

provides redundancy to the Gateway project.

Q. Thank you. I'd like to turn your attention, Mr. Gerrard, and your testimony for the Board now to the need for this project, and specifically the needs within what you call the "critical load area."

Before we begin, can you kind of encapsulate for the Board what you mean by the "critical load area"? Exactly, geographically, what is or is not included in that?

A. Yes, certainly. There's an exhibit in my testimony that was submitted -- and I believe there's one in your handout as well -- where I've got this picture of the critical load area. And again, 80 percent of the load in the state is located here.

I'd also want to point out that there are major transmission lines -- import lines from the south that serve this critical load area. And there are actually six high-voltage -- EHV we call them -- high-capacity lines that bring the resources from down here in our Emery-Huntington plants, Carbon plants, and into this critical load area.

Also, any purchases that would come from Nevada or the Four Corners would come into the critical load area.

The critical load area load in 2007 was, I

mentioned 4,400 megawatts. It's expected to be 5,500 megawatts in 2013. The criticality comes from the point that, as this load grows in the critical load area, our ability to import on these lines is decreased.

That's an artifact of large air conditioning loads, rotating equipment, electric loads, a large distance and remote from generation. So again, as this load increases, our ability to import on this -- these lines -- these existing lines decreases.

In fact, if Mona-Oquirrh is not constructed and this load continues to grow, our ability to use the existing Hunter and Huntington plants as they sit today is diminished over time because we can't import across these lines reliably.

And I'll show you a little bit more of why that's the case.

Q. Mr. Gerrard, could I have you describe for the Board the Company's current ability to sustain the electrical demand in this critical load area?

A. Certainly. And again, I would just make the point before I switch slides here that the future resources that have i -- low-cost resources that have been identified by our company to serve this area are located in this region right here through 2014.

So our ability to import into this critical load area from the south is predicated, or is limited I should say, by two things. By two factors. And they're interrelated factors.

So I'd like to show some actual operating history and some actual infor -- some actual forecasts that show the urgency of this project. And so I'll build these for you today. They may not be animated in your slides there, so bear with me for a moment.

So what I'd like to show you today is a two-dimensional, two-dimensional view of why we're limited in our capability to import into the critical load area.

So first of all, along the bottom here I've put a scale. This scale is the demand -- customer demand in that critical load bubble in megawatts. So from 5,800 megawatts down. So that -- on the horizontal axis, that's our customer demand.

On the vertical axis on the left, this is the import capability of those six high-voltage transmission lines that come up from Mona and into that critical load area. So again, those are in megawatts over here.

And these two are interrelated. You can't really have one without the other. So let me show

you -- what I'd like to do next is show you some actual operating history. This is actual data out of our company energy control system.

This scatter diagram is the customer demand in that critical load area and the flow into that critical load area for every hour in 2007. So 8,760 hours. There's a corresponding load/customer demand, and there's a corresponding generation delivery into that bubble.

Q. So Darrell, before you move on, just so it's clear for everyone. I assume then down here, one of these dots at the bottom, that might be at 3:00 in the morning on, you know, January 10th, when there's very little power being used. And one of these dots up here might be at four in the afternoon on August 5th?

A. Yes, that would be correct. As you move to the right, that's increasing customer demand. And for us, that's summertime. Down here would be an off-peak and off -- evening time.

Q. Thanks.

A. So I'll show one more slide on this. So to further the understanding here, I've picked the highest demand we had in the critical load area, which was 2007. And our demand was around 4,400 megawatts.

And at that point the corresponding flow on

those lines, those six transmission lines coming in from Mona was about 20 -- well, 3,328 I guess is the number there. So that's the last peak we had.

Now what I'd like to do is put another line up here which shows the limit. And that limit is the, is the maximum amount of transfer capability or the maximum amount of power we can bring in to that bubble from the south, based on the customer demand.

So for every customer demand number there's a corresponding value of import. That line is the limit. And that line is limited by the reliability of those six lines coming in. So by example then, I just picked a number here of about 4,900 megawatts. And I put it up against the limit line. And in that case our ability to import from the south reliably would be 3,250. Just to show you how the limit line has been -- would be used.

Now, fortunately in 2007 we didn't have that high of demand. But I wanted to show the Board these series of dots that are shown here above that limit line are areas where we're operate -- we would be operating in unreliable state.

In other words, another disturbance, or another line outage, or a generation outage could cause a disruption of transmission service in the

valley. So that's an area where we cannot operate. That limit line tells our operators how hard they can stress the system.

So now what I'd like to show you, now that we kind of understand the graph, is I mentioned earlier that our ability to serve the critical load area decreases with load increase, and I'll show you why that's the case.

In 2010 we're projecting or forecasting the load, again the demand in the critical load area to be around 4,900 megawatts, approximately. The limit on the system today limits us to an import of 3,120 megawatts.

So all of these -- this area above the line here, should we hit that demand level, would require us -- with all generation online, would require us to reduce customer demand. In other words, to turn customers off to stay below that limit and operate reliably. So that's an area where we cannot operate.

The next graph I'd like to show is our 2011 forecast, which is around 5,051 megawatts. And as you can see, now the demand's gone up. Our ability to import from the south has decreased, as I said it would, down to 2,750. And again we have a large number of hours where we would be over the limit of

the system.

And again, taking the forecast, by 2013, 2012, we have that many dots above the line. That many hours where we have exposure to customer outages. And in 2013 you can see we're down to an import level where we've got nearly 50 percent of the time we could not serve our load under the existing system conditions.

We have -- I have three projects underway right now that will move this limit line from where it is here out to about that region. That allows our existing system, with three projects added, to be able to serve our customers through 2013.

After 2013 I'm out of options. I don't have any other system augmentation I can do, without Mona-Oquirrh, to make sure we can serve our customers. So this line will be moved out by 2013. After that I have no options to move it except with this transmission line being constructed.

Q. Could you describe for the Board the limitations that you would have if one of your current lines went out of service? I assume all of these lines that you've shown are with everything operational. What would happen if one of your lines went out of service prior to Mona-Oquirrh?

A. Yeah, that is correct. And I'd like to emphasize, what I have just shown is the transmission capacity with all of our lines in service that are there today. No outages, planned or otherwise.

Similar to the chart that you just saw -- I won't go through the chart in detail because you saw how I built it before -- again, across the bottom I've put customer demand in the critical load area. Up the left side I've put the transmission import capability north of our Camp Williams Substation. So this is our large station there by the prison, by Point of the Mountain. And this is the transmission flow into that critical load area on those transmission lines.

Again, there's the dots from 2007. That's our operating history. And the next line that I put in here is our existing system limit for import into the critical load area if we have one line out of service for maintenance.

So should we remove one of the lines north of Camp Williams for insulator replacement, or it gets damaged or goes out of service, we have that many dots -- about 22 percent I think I calculated -- of time where we can't serve our customers at peak load with one line out.

That risk grows to an unacceptable level by

2013. So we have that risk today, but it just continues to grow through 2013. Again, the standards -- Transmission Planning Standards require that the Company have the ability to take lines out of service for maintenance. And in this case, we do not.

The last line I'll put up here -- apologize for all the graphs -- but the last line I'll put up here is that limit line now moves to that position approximately when we build our Mona-Oquirrh project and we have the capability that we need to serve customers with lines out. And the reliability triangle provides that capability.

Q. Thank you. Darrell, could I have you describe to the Board very succinctly, in non-engineering terms, when does the Mona-to-Oquirrh line need to be operational, and why?

A. Well, for just the reasons that I stated a moment ago with this graph up here. By 2013 we will not be able to serve the expected demand we have in the critical load area -- including Tooele County, who is served out of the critical load area -- with all of our lines in service.

Second, with one line out -- I just went through that -- we have significant unacceptable exposure at that point, I believe, in being able to

serve our customers with lines out for maintenance or for, for outages.

And I would comment to the Board, too, we actually had requests to take lines out of service here in the critical load area. They wanted to work on the railroad and replace some crossings. And we would not allow those to be taken out of service. And we delayed their work, because we can't take our lines out of service as requested by others.

The last, the last thing I would make, the reason 2013 is urgent is as this load grows, our ability to use our existing Hunter and Huntington Power Plants from the south is decreased. Those assets will be impaired, we won't be able to use the generation.

Q. Thanks.

A. I think that's significant.

Q. You've mentioned the importance of line separation. Again, in non-engineering terms so that even lawyers or other non-engineers can understand, could you describe for us why is line separation so important to the plan of this project?

A. Yeah. I guess I would go back to -- yes, I can. I'd go back to this chart here. We absolutely have to have redundancy in the system. We have

experience that lines in close proximity can be forced out of service by a whole host of reasons.

And the geographic separation reduces the exposure to the system for common-mode outages. In other words, taking two lines out or multiple lines out at once. That's very key to the reliability requirements of this project.

Q. How far apart do the lines need to be? So in other words, you've indicated you need these lines to be separated, how far apart do they need to be?

A. The separation of lines is really left to the utility to determine. There are some planning criteria that talk about the rules I have to take into account if lines are in close proximity. But that, in itself, is not a performance standard.

We -- on these high-voltage lines for Gateway, I mentioned our Gateway South and Gateway West lines. As I specced the project and handed it to Mr. Brandon Smith, my colleague here, to site and permit, we required at least a mile separation between these EHV lines. And again, I scaled how big those were for the Board. They're very large lines, with a lot of risk. And up to, up to five miles of separation, if we can obtain it in some areas.

So we're working with corridors for Gateway

separation from a mile to five miles where we can get it. Again, there's no, there's no requirements precisely that dictate that. That's left to our utility and our experience.

Q. Darrell, one of the things that the Board will be left to consider if they're asked to reroute this is moving the line and rerouting it. Can you describe for the Board the impact, if any, that the length of the lines -- how line lengths impacts the system?

A. Yes, certainly. Although there's quite a bit of discussion about locating lines close together, there's also a significant factor about line length. And let me demonstrate that a little bit.

I think, hopefully everyone here on the Board has heard the term that water follows the path of least resistance. That's a pretty commonly-used term. So does electricity, by the way. So the longer the line, the less the power like to flow over the line. It has more resistance in it.

So one of the things, when I handed this project to Mr. Smith, is if we look at the segment right here that goes between Limber and Oquirrh -- and remember, what I'm trying to do is backup these segments here.

Segment 2, if it's routed around the north end of mountains by the lake, and over to Terminal, and then back down to Oquirrh, is approximately 18 miles longer than the current route that the Company's preferred and that our final EIS -- or proposed in the final EIS is preferred.

That's a 60-percent increase in line length. So what that does for me, as a utility planner, is put 60 percent more resistance in those lines. And that line will not, will not transmit electricity to Oquirrh as efficiently as a shorter line.

The consequence of that longer line is that the power will tend to flow up this line and over here to Oquirrh, rather than go 60-percent longer from Limber, to Terminal, and back down to Oquirrh. So in summary, what that does is forces me to -- forces higher utilization of this part of the system, and less utilization of this part of the system. So it's longer, it's less efficient.

The other thing that it does is, being as this line, this line length if it was placed -- 2 and 3 were placed together, 60-percent longer, that's 60 percent more line losses. When we transmit energy over these lines we have heat, it goes up in the air as losses, that's there forever. That increases line

losses by 60 percent.

So based on the fact that this longer line is less efficient, it doesn't, it doesn't let me, as a planner, optimize the existing assets that I have. It's 60 percent more lossy. And it's less reliable, from a line-length perspective and from a co-location perspective, if they're in close proximity.

Q. Thank you. One of the things that might be suggested to the Board is that, rather than having the Company connect to the Oquirrh Substation, that it connect first to Terminal and then come down. Does it matter whether the Company connects to Oquirrh or Terminal first?

A. Yes, it certainly does. It needs to connect to Oquirrh first, for two primary reasons. Oquirrh is our highest load growth hub. Our load growth there is in excess of seven percent forecasted. We need to get the energy there.

Second is it needs to backup. I need to have backup capability. This is -- these two lines right here between Camp Williams and Oquirrh is the weakest link, if you will, north of Camp Williams.

When I showed you the scatter diagram a moment it showed we couldn't serve our customers a good share of the time. That's because of the weak,

the weak, the weak link here. And again, the sum of the parts is only as -- excuse me. The system is only as strong, as strong as the sum of the parts.

I need this line length here to back up this line right here. By going up and around to Terminal and back down, I don't get the backup for this line right here because I have constraints up here. So we need to go to Oquirrh first for reliability reasons and for load growth reasons.

Q. Thank you. We talked this morning quite a bit about the need to have line separation to keep lines, if we can, out of the same corridor in order to avoid anything that may -- if it takes one out, it's gonna take both out.

Could you give the Board any kind of examples of occurrences that could realistically take out two lines if located in the same corridor?

A. Certainly. In my experience there's a number of situations that cause common, common corridor outages. And those can be anywhere from weather caused, whether it's storms, blizzard, ice storms. We have a lot of incidences of smoke, fire taking lines out of service.

And it may not just be that the line is damaged by the fire. Quite often these are taken out

for extended periods to protect fire fighters and other serve -- emergency services around the lines. They actually have to be de-energized, even though they're still functional potentially.

We have aircraft strikes, we have floods, we've had ice. Quite a number of events that have caused common -- common corridor outages, I would say.

Q. Could you share with the Board any specific examples of those kinds of occurrences actually taking multiple lines out when they've been located in the same corridor?

A. Certainly. I refer you to my testimony. I think it's -- I believe it's on page 19. I've provided eight or ten examples of -- well, actually there's eight examples that have happened to Rocky Mountain Power. And then there's a couple of examples that were -- have happened outside of our company.

I threw in a couple of pictures here just to illustrate that point. This one happens to be our -- I mentioned our Bridger West system coming out of Wyoming and into Southeast Idaho, where we have three -- at the time they were constructed there were supposed to be four lines. They ended up constructing three. And they're very close together, some 125, 160 feet apart.

This particular example, 2007 we had a fire go through there. You wouldn't think there's much to burn out there. I've heard people say there's nothing to burn. But believe me, it does. And we had all three lines out of service for quite some time. Either forced out of service, or they were de-energized for firefighting protection.

Also we had two or -- two of these lines cascaded clear to the ground, due to ice in an ice storm. The third one was significantly damaged. And we impacted significant customers in Idaho.

Another picture here, the reason I have this one here is we never seem to outguess Mother Nature. No one projected high water levels of the Great Salt Lake, or floods, or the ice that would, would follow. And we had transmission lines located -- co-located, with significant damage.

So not only is it detrimental to the grid, but trying to get out in these areas and repair them -- or reconstruct them in this case, they were rebuilt -- is very, very difficult. And again, Mother Nature often gives us things that we hadn't expected.

Also, in this case the existing line that was there, that you see still standing, was damaged but it was in service. And it could not be removed from

service so we could do demolition of the stuff that was on the ground there because it didn't have backup.

This next picture is some of the ice that no one had ever expected that actually sheared these towers off. And they were not designed to take that kind of, that kind of loading.

Again, looking south down the line, same type of damage. Again, we couldn't get in to repair those lines.

Another example. This happens to be Palo Alto, California, where this line was specifically designed around an airport. However, planes and pilots don't always follow rules and a rather wide outage happened in the Palo Alto community as these double circuit lines were sheared off by an aircraft.

This is our Emery-to-Sigurd route. Sorry, you can't see it exactly, I put some lines on there. In 1982 and '83, even though we did our geological homework or geotechnical homework, over a period of six months there were five different landslides that affected our transmission line. Some more than others.

And in this case -- I'll flip the page here -- both lines co-located. Both lines were completely taken down for, for several spans and had

to be rebuilt. You can see the damage that results.

Also I think you can appreciate there's a significant fire -- there's significant fuel around those lines, and the Company doesn't always have the rights to clear fuel to protect us from fire. It depends on our permitting and such. So very significant impact.

In this case -- some of you may remember this if you've lived in Salt Lake -- in 1983 we had seven transmission lines impacted by a windstorm that lasted from April 3rd to April 5th. Significant damage.

The, I guess the saving grace, if I can use that term here, is these lines at the time were not heavily loaded. They were relatively new. They weren't used to their full capacity, or there would have been widespread outages in Salt Lake.

Today these lines have had over 20 years of load growth, there's a lot more power flying on them, and they have a larger impact.

I've put a couple other outages in there on the 500 kV AC interties, but you've thread that in my testimony so I won't, I won't cover those.

Q. Thank you. Mr. Gerrard, could you please describe for the Board how this project is critical to Tooele County, and specifically how Tooele's citizens

will benefit from this project?

A. Yes, certainly. There's definite -- definitely a benefit to Tooele County and to the critical load every -- overall, in addition to the benefits I stated for the west-wide grid. What I've put up here is a simple graph of the electric energy sales in Tooele, which have increased 44 percent since 2002.

The bottom line is the rate in the State of Utah. So it's about twice the rate of the rest of the state. And it is a fact that Tooele County is served as a critical load area. We have two lines serving Tooele County. One -- two from Terminal Substation and one from Oquirrh Substation.

And those lines serving Tooele are expected to be out of capacity by 2013 to serve existing customers. In addition, without this project we'll be unable to serve any large economic development projects. There's been a couple proposed in Tooele.

Without, without this project we will be unable to accommodate the loads that are demanded by those. Also, this project brings a large reliability benefit to Tooele. With Limber Substation there, again my concept of hubs, we put a large-load hub resource -- connected to resource hubs in Tooele.

And the diverse line route that we get by connecting to Terminal and to Oquirrh on the route that we've shown as preferred improves the reliability to Tooele.

Q. Thanks. Finally, Mr. Gerrard, could you please explain to the Board why the Company is approaching it now for a project that is not scheduled for completion until 2013?

A. Yes, certainly. The, the time it takes to, to design, to permit, to construct these projects is extensive. The last major project our company did was a 500 kV project in Oregon, and it took seven years from concept to construction. So we need to be -- we need to have time to anticipate and do the construction.

This project was actually proposed to be in service in 2012. I mentioned when we, when we announced Gateway -- our Gateway concept in May of 2007 its in-service date was 2012. And we've pushed that out actually a year, to 2013, based on the time to permit and on the time to -- and some of our load growth projections.

So it takes a long time. We've been at this five years, and we still have at least a year, maybe two years of construction before we can complete the

project. So these large infrastructure projects take a long time to accomplish, and we need that, we need that to start now.

Q. Thank you.

MR. MOSCON: Mr. Chairman, with that summary I would move to admit the testimony of Mr. Darrell Gerrard, and make the witness available for any questions of opposing counsel or of the Board.

CHAIRMAN BOYER: Very well. Are there any objections to the admission of Mr. Gerrard's prefiled testimony?

MR. HOGAN: None.

CHAIRMAN BOYER: Very well, it is admitted.

(The prefiled testimony of Darrell Gerrard was admitted.)

CHAIRMAN BOYER: We'll take short recess, 10 minutes, 15 minutes, and resume back here with cross examination from Mr. Hogan.

THE WITNESS: Thanks for your patience, by the way.

CHAIRMAN BOYER: Thank you, Mr. Gerrard.

(A recess was taken from 10:39 to 10:57 a.m.)

CHAIRMAN BOYER: Back on the record.

Mr. Hogan, cross examination?

MR. HOGAN: Thank you Chairman.

CROSS EXAMINATION

BY MR. HOGAN:

Q. Mr. Gerrard, I've taken the presentation back to that slide labelled "Energy Gateway Stage One," when you talked about a reliability triangle from the big picture. I think you were talking about 500 kV -- a 500-kV triangle.

Am I correct to understand that the legs of the 500-kV triangle are what are labelled as Segment F and Segment D? Those provide two of the legs?

A. That is correct.

Q. And where is the other 500-kV leg in that triangle?

A. The gentleman was referring to F here, if you can't see that, and D here. Segment C is Mona-Oquirrh, which is a 500-kV segment.

Q. And is that 500 kV all the way?

A. It is 500 kV between our Mona Substation and our Limber Substation.

Q. What happens at Limber?

A. Limber is planned to have a transformation from 500 kV to 345 kV.

Q. So is it important to have a 500-kV triangle complete, or is it important to have 500 kV where you want 500 kV and it's okay to have something else in

another place?

A. It's okay to have different voltages of 500 kV or 345. The issue here is its capability -- its ability to move megawatts.

Q. Okay. So --

A. Not the voltage.

Q. So it's not essential that it be a 500-kV triangle?

A. That's correct.

Q. Okay. Is it -- you've got this labeled as "Long-Term Needs," and I think you characterized long term as greater than ten years; is that accurate?

A. Yes, more than ten years.

Q. Okay. I noticed that on this slide it does not show a designation for the Limber-to-Terminal link. Is that, is that intentional, or is that omitted, or have I missed it?

A. No. For Stage 1 that segment is not needed yet, so that was planned to be built later than 2013.

Q. Is that accurate as of today, May 10, 2010, it's not gonna be needed until at least May 10, 2020?

A. I'm not familiar with the May 10, 2020, date.

Q. That would be ten years from now. You said this is a ten-year -- this is a plan that lasts for longer than ten years.

A. Yeah. In my testimony -- well, there's -- let me, let me give you two drivers for the need for that line. I think your question is, when is that line needed?

Q. Exactly.

A. Was that your question? The line from Limber to Terminal is needed for two reasons. One is when we add more capability to the system in Stage 2 between Mona and Limber there's plans for Stage 2.

The second reason is back to my local reliability triangle, where I need a backup between Terminal and Oquirrh.

Q. Okay. I understand that.

A. At that point I need, I need a backup for that segment that exists today.

Q. Do you know when Stage 2 will be built?

A. The plan -- my testimony states it will be somewhere around 2019 at our current plan. That's Stage 2.

Q. And that's the latest, greatest, best information that Rocky Mountain Power has available, it's not gonna be needed until the date you just specified?

A. That's my -- that's, that's correct.

Q. Okay. Is it accurate to say that when the

Mona-to-Oquirrh line is constructed -- wherever it, wherever it ends up being, whatever route is selected -- will that route predetermine the location of the Limber Substation?

A. Well, we have shown our, our preferred location of Limber Substation, if that's what you mean.

Q. Well, what I mean is in every, in every alternative that's been considered at least in your petition, the various routes, it seems that wherever this line is placed will determine the location of the Limber Substation. Is that accurate?

A. I'm not sure I understand your question where the line is placed. I'm sorry, I'm not sure -- I'm --

Q. When, when -- on your -- well, let's go --

A. Maybe you can clarify for me a little bit before I answer, please.

Q. Let me find your slide.

Let's go to the one that's in Brandon's testimony where you've got the local leg. It's got the dashed lines.

A. Whoops, let me go the other way.

Q. It's right before the charts. All the critical load charts.

A. This one?

Q. Yes.
A. All right.
Q. Okay, the circle that you've identified as the future Limber Substation, with the dotted line No. 2 being the Mona -- or the Limber-to-Oquirrh leg of the project?
If, if the leg for No. 2 was moved for instance to the north, and we, we weren't talking about the southeast bench right now, we're talking about the Grantsville alternative that's in your petition.
It seems that the placement of this route, this segment, determines the location of the Limber Substation; isn't that accurate?
A. What is accurate is we placed Limber Substation to provide the shortest line length we could to get to Limber, the most reliable line length to get to Limber, and the lowest cost actually to get to Limber, because it is the shortest distance.
Q. Okay.
A. That's what dictates where Limber is. The other thing I mentioned earlier, is the shorter I can make the No. 2 line from Limber to Oquirrh, the better performance I get out of my system here. The longer I make this line, the more the energy wants to flow over

here and not on our new system.

Q. Right.

A. So as a utility planner, if I can make that line short, it looks like it's this route. And the optimum, the optimum configuration would have these two length -- lengths be equal.

Q. Okay.

A. So.

Q. For the sake of discussion, assume that Limber Substation is moved north of Grantsville to the I-80 Corridor. Can you draw a triangle from that location to Terminal and to Oquirrh?

A. No, I cannot.

Q. Why is that?

A. I don't have a, I don't have a line from here back to Oquirrh.

Q. You can, you can use the existing cross at Pass Canyon and, and run a triangle from I-80. Granted that the substation, it would appear that the lines are gonna be closer together. But you can draw a triangle from I-80 and get to Terminal and to Oquirrh? Those seem to be three distinct, different locations that aren't all on the same linear path.

A. Well, I, I'm not all -- I'm not that familiar with the line route that you just talked about. That

may be something Brandon can address. But my, my comment still stands.

I, I could not recommend to my management nor to this Board that we build the line route that goes -- that puts these two lines together and routes them up around the point -- the, the mountains along I-80 and then back down to Oquirrh.

Q. I can address the specifics of that with Mr. Smith.

As to the Limber Substation -- which I think is important to be considered at this point in time, because wherever this route gets sited it appears that the substation will come next.

Can you tell me, from the big picture architecture standpoint, is it more likely the lines are gonna tie into the Limber Substation coming from the north side of the substation or from the south end of the substation?

A. From the south side.

Q. And where would they come from, additional lines?

A. Our plans are to come from Mona.

Q. Okay. Other than Rocky Mountain Power, is it likely that this will tie into a regional grid from the west?

A. I'm not aware of any ties to the west that are planned for Limber. If it came from the west I would expect it would go to Mona. It's a resource hub. It's the largest resource hub in Oregon. Or excuse me, in Utah.

Q. If there were connections from the north, where would they be likely to come from?

A. There are plans from the north. Idaho Power has a plan that connects to Populus, connects to Hemingway. There's lines from the north from Montana that connect to Midpoint.

Q. Okay.

A. They connect to Gateway, as it's designed up on the screen.

Q. Okay.

A. I can show that if you want to look.

Q. I don't think we need to. But what I'm -- the point I'm trying to make here is that substation, once it's located, if there are gonna be other lines that connect in -- whether they be from the north or from the west -- it would appear that if it were located north of Grantsville you have straight shots that tie in without the need to co-locate very high voltage lines that would be tied into these other regional systems because you're right on the I-80

Corridor.

You've got a straight shot to Nevada. You've got a straight shot north. But if you leave the substation south of Grantsville you're necessarily going to need to run parallel lines to get to Limber Substation to interconnect regionally; isn't that correct?

A. Well, I'm -- again, I can't answer that because I'm not aware of any regional connections to Limber. But what I am aware of is two things. Our resource plan that the Company refreshes every couple of years -- which most people are familiar with -- have identified the resources to serve our customers.

And those are located in Wyoming and in Southwest Utah -- or Southern Utah, either from markets or from power plants. We have no resources planned to serve our customers coming from the west.

Q. Okay.

A. So I sited Limber Substation for efficiency of the new assets we're adding, and the efficiency of the existing assets that it interties with. By "efficiency" I mean loss savings and its capability to deliver energy over time.

Q. I --

A. And cost.

Q. I believe what Tooele County is asking, particularly the residents of Grantsville that will be very impacted by the location of that substation, what their concern is is that there will be tie in from the west and from the north.

And unless this substation is moved to the north to the I-80 Corridor there's gonna be a spiderweb of lines coming out of the north side of the substation. That is a, that is a great concern?

And I know you're telling me that you're not aware of Rocky Mountain Power's plans internally to connect that way. But is it conceivable that other providers would desire to connect to the system from the west and the north?

A. I think it would be more desirable for them to connect to Mona, if they connect anywhere. The other thing I would say is, if you were to pull out the Western Electric Coordinating Council, who is our reliability organization for the West, they have a planning, a planning process where projects are brought forward for regional planning.

So as planners we've considered just what you're talking about, regional projects. And I can personally tell you, if I look at the map, there are no projects planned to connect to Limber. There are,

there are projects planned to connect to Gateway, however.

Q. Let's go to a different area that you testified about. Let's talk about minimum separation and maximum separation. If I heard you correctly, I believe I heard you say that the minimum separation the Company looked at was determined by the Company and you set it at one mile; is that correct?

A. That's the criteria I set for the projects, yes.

Q. Okay. With respect to this project, are you, are you aware that the criteria that was used in the EIS they looked at a 1,500-foot separation? Are you aware of that?

A. I understand there was some, some reference to that in the EIS, yes.

Q. Okay. I can certainly appreciate, as a non-engineer, the idea of minimizing risk. Okay? And the further we get away from one another -- I, I can see that. I think that's intuitive to everyone. But I can also appreciate that there's a diminishing return that's achieved.

You're getting -- you're separating these two lines out. They go to a common point. And at that common point, which in this case would be the

substation, you're necessarily gonna be somewhat close to one another.

So if you have any one of the events you've talked about that can take out -- a common cause that takes out lines, if it happens at the substation, they're both down. Would that be correct?

A. That's correct.

Q. And then as you move away from the substation of course it's probably desirable to get them, to get them separated and to achieve the separation as quickly as possible?

A. That's correct.

Q. Okay.

A. The standard in that case is five spans.

Q. Okay. Are you aware of the width of the right-of-way that exists with Interstate 80 and the railroad as it heads west parallel to Interstate 80?

A. All I'm aware of is I've seen it on a map that, that was designated as a potential but not registered energy corridor. That's the only -- I've, I've seen a map, that's all.

Q. Okay. Would it, would it surprise you if I told you that that -- the width of that right-of-way is anywhere -- at its narrowest point 300 feet, not including the railroad, just the interstate. And at

it's widest part, not including the railroad, is 500 feet. Would that be surprising to you?

A. No, it's not. As that process went forward there were a number of corridors that were identified. Most of them were around existing lines. And the width varied quite significantly across the U.S. when they did that study.

Q. As I have noted on many occasions, and as I came to this hearing today, I paused when I got to Lake Point and I looked back at the Interstate 80 corridor. And I was, I was struck by the fact that in the EIS it was determined that you couldn't find 1,500 feet to separate between Lake Point and Grantsville.

Do you believe it's impossible to co-locate and achieve a minimum separation of 1,500 feet between Lake Point and Grantsville?

A. Well, I'll let my colleague, Mr. Brandon Smith, cover that, because he's done extensive look at that.

Q. Okay. Can you tell me from the big picture, when the Company looks at minimum separation, how did you arrive at one mile in this case as being the, as being the number that was critical?

A. Yes, I can answer that. My basis was a --

let me refer to my notes here. I want to be accurate.

Q. And I'm not asking for specific numbers. If you can just explain the methodology, that will satisfy me.

A. Yeah, but I -- I will do that. I just wanted to make sure it was, it was clear to the Board where I was getting my information.

I based my performance requirements and the project requirements on a Western Regional Corridor Study that was done in 1992 by Western Utility Group. And that corridor study is one of the most extensive studies I've seen in my 30-year career.

It resulted from the outage of the AC intertie, which are the two -- at the time were the two 500-kV lines that connect basically Canada to California. But at least the Northwest to California. They had a significant outage on that line.

Forest fires took it down a couple times. They had a huge ice storm and blacked out 5.2-or-so million customers. As a result of all that, they commissioned -- the result of that outage was a new line had to be built, a new 500,000 -- 500-kV thousand-mile line, because the reliability of common corridor lines was not adequate.

So they commissioned a study. And in here it

was coauthored with the BLM and the Fish and Wildlife Service, I believe. Excuse me just a minute. No, U.S. Forest Service and the Bureau -- BLM. And out of that study in here they talk about the corridor separation.

And they say lines of this capacity should be separated by miles, not feet. They also say, for planning purposes, corridors of a mile or up to five miles should be adequate, when you're looking at routing new transmission lines, to ensure adequate separation for reliability.

So that's where I based my information, was on that study.

Q. In light of that, how did you get the five-span number that you just mentioned a minute ago?

A. Yeah, good question. That, that is a regional criteria from the Western Electric Coordinating Council, where they talk about adjacent corridors. That -- it's a planning criteria, not a standard. I misspoke, I said it was a standard. It's a planning criteria.

And it tells me, as a utility planner, that based on performance and history, about five spans or five towers out from a substation is reasonable to start bringing lines together. And the exposure is

not too high. That's, that's a guideline or criteria.

Q. On this project would that be roughly 1,500 feet?

A. As far as a?

Q. Five spans.

A. No, that would be about one -- 1,500 feet is approximately one span.

Q. Okay. So I, I still don't know that I'm understanding, then, why it was that BLM took great length to look at 1,500 feet as being the critical point to achieve separation. Why is that?

Was that -- and I understand -- I also understand that the parameters that are given are given to them by the Company to a -- you know, the project has to meet its needs. So was the 1,500 number, was that supplied by the Company to the BLM?

A. Yes, it was. Let me see if I can clarify it, please.

Q. Okay.

A. There's two, there's two criteria that I've been referencing up here. And the first criteria is two lines in common corridors. And the planning criteria -- again, it's not a standard -- talks about adjacent lines in common corridors.

And if they're separated by more than a span

length, or 500 feet, they're not considered adjacent. That's where that comes from. And a typical span for a 500-foot -- excuse me, a 500-kV line, for planning purposes is about 1,500 feet.

So that's used as a rule of thumb to talk about whether two lines are adjacent to each other or not for planning purposes at the WECC.

The second criteria, and the one that I'm most concerned about here, is loss of an entire corridor. Where you lose all the lines that you have in that corridor. That's, that's the reason I'm not recommending that those projects -- that those lines be co-located. There's more than one criteria, just to be clear.

Q. But the examples that you cited in your testimony of co-location being a problem and common causes causing lines to go down, what was the greatest number of feet separation in all the examples that you cited?

A. I don't know what those would be. I didn't, I didn't look at that.

Q. I mean, it looked awfully close in the pictures. I mean, I, I don't claim to have a surveyor's eye but, I mean, the Thistle, the Thistle example looked very close.

A. I don't know the answer to your question, I didn't look at the separation. But obviously by the pictures I've shown you of the Bridger lines, those three lines together, I believe they're 150, in round numbers. Subject to check. They're very close together.

I would also point out that the rule for line separation, we can locate lines closer together if we choose to as a company. The criteria, though, is I still have to provide redundancy.

So should I choose, so should I choose to locate lines closer together than 1,500 feet in the -- in your question, I can do that if I, if I had to, but I still have to provide redundancy. It doesn't take away that performance requirement.

Q. Okay.

A. That's why I'm trying to make the point that line separation in itself does not constitute a electric system performance. That's just one attribute.

Q. Okay. And with the exception of the smoke and the mudslide, it appeared that even when the lines were co-located very closely to one another and there was a common-cause event, that only one line went down. Is that accurate?

A. No, I think the examples I showed showed several lines. One was seven of them. One was two. No, they were -- most of them were, most of them are more than one line.

Q. On the, on the lake, on the lake example you cited --

A. In that --

Q. -- one line went down?

A. In that case, that's correct. There was one line was down, one was damaged.

Q. Is --

A. I didn't have a picture of where they were both down but one was damaged.

Q. Okay.

A. And I guess the other point I tried to make for the Board is that they don't have to go down to be a problem. If they're damaged, or you can't get to them to repair them or de-energize them, that's, that's an issue.

Q. Is the system that's been designed, from the big picture, with all the reliability triangles, is it designed to create a system that 100 percent completely avoids outages in all circumstances?

A. No, it is not. That's not possible.

Q. Okay. Given that that's not possible, there

is a certain amount of risk with every plan that Rocky Mountain looks at from an architectural standpoint; isn't that correct?

A. That is correct.

Q. Okay. And wouldn't it also be correct to say that in this case, when we're talking about separation of lines, the Company, in its sole discretion, based upon the standards and guidelines you've brought up, is determining what that minimum threshold is going to be?

A. That is correct that the, the determination of system performance is left to me and my company --

Q. Okay.

A. -- and how that performs. As would be any mitigation -- should they not perform, we would also be asked to mitigate and correct that situation.

Q. So I'm gonna use a very, a very simple example to try to illustrate the point that I'm making. From a, from a risk standpoint what it sounds like to me is -- when I wake up in the morning there's a risk my pants are gonna fall down. I wear a belt.

I wear a leather belt. And I wear one. And I've determined that that's sufficient. I'm not nervous that my -- I'm not gonna have an event where I lose my drawers when I go in to work that day.

But I don't put on two belts and a pair of suspenders underneath my shirt, and then another pair of suspenders over top my shirt, which may be equivalent to maximum separation. I'm certainly never gonna have a problem losing my drawers if I've got two belts and two pairs of suspenders on. But I've accepted the risk with one belt.

Would you disagree that that's akin to what the Company is doing here? The Company is saying, Look, we can have minimum separation. And we can do that for a period of time. And there's a risk associated with that. But we're trying to achieve maximum separation.

And in this particular example you're looking for maximum separation, you're looking for two belts and two pairs of suspenders; isn't that correct?

A. I guess I don't have a strong opinion on your suspenders. But what I do know is that we're held to a prudency test that we're using our experience, both technical and operational experience, to make sure we design a system that's reliable. That's difficult to do. And that's my job.

I think the next part, though, is that our worst-case scenario isn't a belt and suspenders. It's that this line doesn't perform, for the reasons that

I've said, and then we're back in front of Tooele County or other constituents trying to build a new line to back it up. That's the worst-case scenario that I want to avoid.

Q. Well, I guess the best-case scenario that I'm trying to illustrate right now is, even if you constructed it as I've suggested co-locating that close together, isn't it correct to say that Tooele County's power situation will be vastly improved from what it is right now today?

A. I would say it's not as good as it could be. And it's not just about Tooele County, again. It's --

Q. No, no.

A. All right.

Q. My question is, we'll be in a better power situation. We'll have more reliable, more quantity, more efficient. All of that will be addressed if we do it just as I've stated.

Even though there will be a greater risk than what the Company's proposed, all those other factors will be achieved with co-locating those lines at a minimum acceptable separation; isn't that correct?

A. No, that's not correct. I don't agree with that.

Q. So --

A. And let me, let me again say why I disagree with that. I think the project you're suggesting is less reliable from a proximity of lines being close together, which we've just talked about. It's longer by 60 percent, approximately.

Q. Let me clarify and make sure you're talking about the right example I'm talking about. I'm talking about running parallel with achieving minimum separation from Grantsville, North of Grantsville, to Lake Point. And at Lake Point following and crossing the mountains exactly as you proposed in your Southeast Bench route. Is that, is that what you're describing right now?

A. I'm talking about the lines that are close together by the lake.

Q. So for four to five miles where we're closer than the Company would like we're gonna negate all the benefit of the proposed upgrade?

A. Well, I guess what I'd like to do is have Brandon Smith talk about that route, because it's more than just separation. That's not the only issue.

Q. Okay.

A. I think we need to talk about the whole project. And I understand your question. I think Brandon can cover that in his discussion.

MR. HOGAN: No further questions, Chairman.
CHAIRMAN BOYER: Okay. Thank you, Mr. Hogan.
Let's see if the Board members have any questions. Let's begin with Mayor Johnson. Do you have any questions for this witness?
MAYOR JOHNSON: I don't.
CHAIRMAN BOYER: Commissioner Allen?
COMMISSIONER ALLEN: Thank you, Mr. Chair.
As you're doing your -- conducting your engineering studies and your analysis of sites and locations do you -- are you involved in calculating or determining the cost for projects and potential site moves, or do you have other people in the Company that are strictly dedicated to cost analysis?
THE WITNESS: We have cost-estimating folks that do the estimating for the projects. Both on a conceptual level and a detailed level.
COMMISSIONER ALLEN: Do they give you feedback if you're making suggestions that you're getting into areas where you might be creating an unnecess -- or a high level of expense, or that you might be gold plating a system based on your cost need to keep a system reasonable in terms of price?
THE WITNESS: Um.
COMMISSIONER ALLEN: Do you interact with

those folks much?

THE WITNESS: Yes, we do. And let me briefly describe a couple levels. At the conceptual level -- and I'll take that back to 2005 and '6, when we were putting the concept together. We used high-level block estimates. By "block estimates" I mean plus or minus 40 percent accuracy. Because you don't know line routes, and you don't know property rights, and things like that.

So we will do an estimate at that point. And then once we've moved our proof of concept to more of a technical state or we have more definition -- like a proposed route now, we know whether it's 100 miles or 80 -- we will do a next-step estimate. Which gets us in around -- somewhere around plus or minus 20 percent kind of range for that.

And at that point I turn it over to the project team to start looking at siting and permitting before we do a very detailed estimate.

COMMISSIONER ALLEN: So it sounds like it's possible you have some rules of thumb you operate by? Such as if you're going to send a line down on an open rural area that you could have a rule of thumb of what it costs per mile, versus say in hostile terrain and what costs per mile might be?

THE WITNESS: Yes, we do. They're, they're pretty broad ranges, but we do have.

COMMISSIONER ALLEN: What do those ranges sound like, just if you were to describe to a layperson like myself what it costs?

THE WITNESS: Let me give you an example. On our 500-kV system it can run anywhere from 2 million to 5 million a mile. And I've seen estimates of 10 million a mile in urban areas for 500 kV. But typically it would be 2 to 5 million for a 500-kV line, something like that.

COMMISSIONER ALLEN: Thank you.

CHAIRMAN BOYER: Ms. Hurtado, have you questions of this witness?

MS. HURTADO: I do not.

CHAIRMAN BOYER: Commissioner Campbell?

COMMISSIONER CAMPBELL: Could you just explain for us what some of those future low-cost resources from the south are?

THE WITNESS: Cert -- certainly. In my testimony, it's Exhibit -- let me check to make sure here real quickly. I think it's 6, but let me make sure I've got it here.

Actually, I've included in my original submittal with my prefiled testimony Exhibit No. 4,

which is a table out of our current -- excuse me, our last revision of our Integrated Resource Plan 2010. It was actually updated in March 2010.

And in that -- if you have that, I'll wait to -- do you have that?

MS. HURTADO: Five.

THE WITNESS: Oh, okay. Excuse me. There's a table there that shows resources for the east. And basically what that shows is purchases from Mona, and purchases from the Desert Southwest, and generation plants built in the southern part of the State.

So those are the resources that I was referring to.

COMMISSIONER CAMPBELL: Then explain for me -- I believe you said that as the load grows, that the transfer capability from the south decreases. Or that we'd have less access to resources in Hunter and Huntington. Would you please explain that?

THE WITNESS: That's correct. What I was -- can I put my slide up here real quick here? Just a second. Yeah, I'd like to refer to this slide again.

It's a, it's an engineering fact, I guess, or physical laws of -- laws of physics. Basically the -- as the load in the critical area grows, our transmission system has to transmit more power to that

critical load area. Which is maybe obvious.

The problem with it is, is it's rotating equipment, and it -- we have reactive power flows on our system. What that means is, is that as those lines load up we get into potential voltage collapse situations where our system can't transmit the reactive power needed for motors, air conditioners, and other rotating equipment.

That does not flow well on a transmission system. So we actually get into voltage, voltage conditions, and that degrades as the critical load area load increases. Again, it's large blocks of load, remote distances from generation, over long lines.

That's, that's what causes it. It's reactive power flow on the system. Poor power factors -- someone may have heard that term -- that's what that is.

COMMISSIONER CAMPBELL: I understand the need for reactive power. Let me, let me ask you this. On your Gateway project you showed a 3,000-megawatt transfer capability. Is that still a plan of the Company? Because it --

THE WITNESS: That is, that is our current plan. I mentioned there was two stages to that

project: A single-circuit stage and a double-circuit stage. And what I showed up here was the double-circuit stage.

And that is still planned at this point. Later this year we'll be making a decision on that. About August of this year. About whether to continue with Stage 2.

COMMISSIONER CAMPBELL: The current corridors that you have outlined for what we're here talking about, the Mona to Oquirrh, that -- what is the megawatt capability of that project?

THE WITNESS: Right now that corridor is planned for 1,500 megawatts right now.

COMMISSIONER CAMPBELL: So if you were to go to your 3,000 long-range plan would you be able to use that same corridor? Are the towers built to handle that double circuit, or would you require a new corridor for that?

THE WITNESS: It would require a new corridor if we built a single-circuit tower.

COMMISSIONER CAMPBELL: Is that what you're planning to build right now?

THE WITNESS: That's correct. At this point, we are. That's what's in the EIS, and that's what's in our application.

COMMISSIONER CAMPBELL: You also talked about the minimum-mile separation. And I think you said you have one line currently serving Tooele Valley from Oquirrh Substation; is that right?

THE WITNESS: That's correct.

COMMISSIONER CAMPBELL: Would you -- as you run this new line to Oquirrh would you have a mile separation -- your minimum one-mile separation with the current facility?

THE WITNESS: That would, that would not be a requirement, because of the capability of that, that line that serves Tooele right now. It's a 138-kV line. It doesn't have a huge impact on the system, so that would not be a requirement for a mile.

CHAIRMAN BOYER: Thank you, Mr. Gerrard. Just a couple of questions. Rocky Mountain Power does -- as I recall, some of the lines coming out of Bridger are fairly close together, are they not?

THE WITNESS: That's accurate.

CHAIRMAN BOYER: That's wide-open spaces. Why did the Company not decide on a mile separation there?

THE WITNESS: I wasn't with the Company at that point, but I think the issue at that point was to minimize the footprint of the project. Those lines

were built with helicopter construction. And they were attempting to minimize the -- I think the, the right-of-way widths that they needed at the time.

CHAIRMAN BOYER: Have you had any sad experiences there in --

THE WITNESS: Absolutely.

CHAIRMAN BOYER: -- catastrophic causes?

THE WITNESS: We have. I mentioned a couple. The fires we've had. The longer-term ice storms. We've had vandalism. We've had people actually cut the wires a couple of towers over or so.

Actually it's part of the reason for Gateway, is -- the three lines out of Bridger, which I showed you the picture of, is the -- unfortunately the worst-performing 345-kV path in the Western interconnection.

So part of the Genisis of Gateway and the reason for Gateway, it can provide a backup to that path.

CHAIRMAN BOYER: Thank you. A more -- in a more recent example, the Ben Lomond-to-Terminal line is co-located for a portion of the route, isn't it, around Millard?

THE WITNESS: That's correct, it is.

CHAIRMAN BOYER: And why did you not separate

the lines at that point?

THE WITNESS: Well, two, two reasons for that. And the, the line between Terminal and Ben Lomond was built in an existing right-of-way. Or property rights that Utah Power was -- had enough foresight to purchase that and preserve it for just this use.

So I think that was a fact, we already had an asset that we had planned for and to use. And the other, the other fact is that there aren't viable alternatives to go through there. You either go through the, through the water, around the Bay, or you go through Bountiful, Woods Cross, right? So there really, and there really weren't viable options.

I would add one more point, though. Part of the reason I was able to get the performance out of the system by co-locating that is because I have Mona-Oquirrh and Mona-to-Terminal lines, because they help backup from the south.

So if I lose the corridor between -- if I have a problem between Ben Lomond and Terminal, now I've got this new project coming from the south with another 1,500 megawatts of capability to back that up. That's part of the wired -- that's the Gateway Central connection is what you asked.

CHAIRMAN BOYER: Thank you. And then one last question, kind of following up on a question that Commissioner Campbell asked. It looks as though the proposed route through the southeast portion of Tooele -- Tooele County will run fairly close to the existing 138-kV line.

And you've mentioned that it's not re -- separation is not required because of the operating characteristics of those lines. But you would still run the risk, though, of a single disaster taking out those lines, would you not?

THE WITNESS: That's correct. But it wouldn't jeopardize Limber Substation if I -- because I have another line route. So the 138 outage, if it happens from a common corridor or common mode, would not jeopardize my substation. The big large substation at Limber.

CHAIRMAN BOYER: Okay, thank you. I said that was my last question, but I have one more --

THE WITNESS: Sure.

CHAIRMAN BOYER: -- that just occurred to me. You have been presenting the triangle that you talked about here, the small triangle in the Tooele area, as necessary to serve resources coming from the south. What about resources coming from the north?

THE WITNESS: In our Integrated Resource Plan, the one that's current, there are resources planned from the north, but those can't get into Utah until Gateway is built. If you go -- the map I showed you of the State of Utah with the paths in, those, those lines are, those lines are constrained.

There's no more transmission capacity available out of Wyoming. It's fully utilized. We operate at its maximum. The lines from Idaho down to Utah are operated at their maximum. There's no capability in them.

Once Gateway is built in around 2016 to '18, Gateway West, then our resource plan shows more resources coming in from the north. Primarily Wyoming, and then down in to Utah. By "north" I mean that direction.

So it's transmission limitation. And currently there's no resources -- we can't get resources there until some transmission is built.

CHAIRMAN BOYER: Okay, thank you.

Let's turn back to the Company for redirect.

MR. MOSCON: Thank you.

REDIRECT EXAMINATION

BY MR. MOSCON:

Q. Just a couple of questions, Darrell. I'm

wondering if you could click to the slide that is what we've called the "Brandon Slide" that shows the inner triangle here in the Tooele Valley.

While you're getting to that slide, though, I want to talk to you for a minute about a point that Tooele County raised, which is a fair point, which is to say is this really a belt-and-suspenders approach when the Company really only needs a belt?

It occurs to me that when you had the pictures of the other disasters that have previously taken out lines you had as an example wind, fire, flood, and a plane crash. Is it reasonably foreseeable to the Company that if there was a fire that would jeopardize lines that the, that the fire would impact an area of at least 1,500 feet or greater?

A. Yeah. I think most of the time these fires -- and we've had several between Camp Williams and Mona, and between Camp Williams and 90th South -- have affected lines that were separated wider than 1,500 feet. That's -- that happens frequently.

Q. Okay. And --

A. Especially in the open range.

Q. If there was a windstorm that -- you had pictures of wind that had taken out towers. Is it

reasonably foreseeable to the Company, or to you as a planner, that if there's going to be a large weather wind event that that event would be limited to an area narrower than 1,500 feet?

Or would it be more reasonable to assume it's going to expand beyond a 1,500-foot corridor of concern?

A. Most of the time I think in a, in a 1,500-foot corridor, wind is gonna be wider than that. You're gonna have a wider swath that it would come down. Microbursts are an exception to that. They're usually very centralized. But the Wasatch Front sloping winds, like the disaster I showed you, were widespread.

Q. One of the other examples you had a photograph of was a plane crash. If you were supposed to, as a planner, take into consideration the possibility that there are airports in this vicinity, if you had a plane crash is it foreseeable that a plane crash could have an impact over an area that's at least 1,500 feet in width?

A. Yeah, it actually has. And the separation, what, what happens there is, unfortunately, usually the airplane will grab a wire and carry it to the next set of towers. It will, it will pick it up and drag

it as the event unfolds. So in close proximity, that's a real likelihood.

Q. Okay. I'm sure you and the Board can see where I'm going with these questions. I won't belabor it through the flood and everything else.

Let me just simply ask. Is it a suspenders and a suspenders and a second belt for the Company to ask for an area of at least -- or even wider than 1,500 feet, or is that what, as a planner, you think is absolutely minimum and reasonable?

A. No. I think it's very prudent for us, with our experience and our planning, to ask for a wider separation for these types of lines that I'm talking about.

Q. Okay, thanks. The next thing I wanted to clarify from some of your testimony, Tooele properly and correctly pointed out, I think, that -- if I can get this to work.

Wherever you have a substation, whether it's up here, here, down here, you've got lines coming in. And there's going to be some few feet leaving the substation where the lines are close to each other. Right?

A. That's correct, yes.

Q. Did -- one thing I just wanted to clarify

from your testimony. We had some conversation about multiple -- you know, five spans or 1,500 feet. Fifteen hundred feet is one span, we need five spans.

Can you clarify for us then what you meant about this. Recog -- assuming again that the Limber Substation stays there, how far away from the substation do you prudently allow yourself to get that separation? Does it have to be instantaneous, or can you go 20, 30 miles before you separate?

A. No. Instantaneous is impossible, 30 miles is way too long. But about five ruling spans, or about five spans, is typically used in the industry in the West as an acceptable amount of exposure for co-locating lines.

Q. Okay, then. Just to clarify then. If you had a long corridor leading from a single substation with the lines co-located, that would not meet the standard. But as long as you've got the separation within about five span lengths, it would?

A. That is correct. That's, that is what I would recommend and advise.

Q. All right. Last point I wanted to clarify. You mentioned a couple of times -- and I don't mean to put words in your mouth -- but words to the effect that you can have lines closer together, but when you

do, it requires redundancy.

A. That is correct.

Q. Can you clarify what that means? In other words, if you had Lines 2 and 3 in the same path, what does that mean to say that's fine as long as we have redundancy? What is -- what would "redundancy" be?

A. Well, if they're in the same path, to gain redun -- redundancy I would have to build basically a third line. Another line in case that -- those lines are affected, I have another path. So that in a sense is another line. As is my concern if this line doesn't perform, then we'll be back looking for a fix. And we will have to fix it.

MR. MOSCON: Thank you.

Thank you, Mr. Chairman.

CHAIRMAN BOYER: Thank you.

Thank you, Mr. Gerrard. You are excused now, thank you.

THE WITNESS: Thank you. Appreciate your patience today and understanding.

CHAIRMAN BOYER: As they say, that's why we get the small bucks. For our patience.

Let's take -- I think this would be an appropriate time to recess for lunch, so let's take until quarter after one. And then we'll resume with

your second witness, Mr. Smith?

MR. MOSCON: Thank you.

CHAIRMAN BOYER: Okay, thank you. I'll see you back then.

(A luncheon recess was taken from 11:42 to 1:19 p.m.)

CHAIRMAN BOYER: And we'll proceed to hear from the second Rocky Mountain Power witness, Mr. Smith.

MR. MOSCON: Yes, thank you. We'll call Mr. Brandon Smith.

While Brandon is sitting down, Mr. Chairman, my colleague will be handing out similar packets like we did for Darrell.

CHAIRMAN BOYER: Great, thank you. Why don't we swear Mr. Smith in before he does take a seat and get comfortable.

(Mr. Smith was sworn.)

CHAIRMAN BOYER: Thank you. Please be seated.

Mr. Moscon, the floor is yours.

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BRANDON SMITH,

called as a witness, having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MOSCON:

Q. Brandon, could you please identify for the Board your name, business address, and present position?

A. My name is Brandon Smith. I work at 1407 West North Temple here in Salt Lake City, where I am currently the project manager in the Transmission Delivery Department for Rocky Mountain Power.

THE REPORTER: I need you to --

CHAIRMAN BOYER: Yes, I'm not sure that the mike is on. Is the light --

THE WITNESS: Yeah.

CHAIRMAN BOYER: Is the light on?

THE WITNESS: Yeah, it's on.

CHAIRMAN BOYER: Okay. You just need to --

THE WITNESS: Okay. Speak up.

CHAIRMAN BOYER: -- draw it a little closer. There we go. Thank you, Mr. Smith.

Q. (By Mr. Moscon) Thanks. Brandon, could you describe for us briefly your education and business experience?

A. I have a Bachelor of Science degree in civil and environmental engineering from Utah State University. For the past 12 years I have been

involved in various field and project management, from civil engineering, to environmental, and now electric utility.

I was a field engineer for the Light Rail Project, Downtown Salt Lake City. And I went to Idaho Falls, Idaho, worked at the Idaho National Engineering Laboratory, where I managed the cleanup and reclamation of contaminated soils at the site.

I then came to the Company and managed environmental reclamation and cleanup projects for PacifiCorp with all the power plants and other various locations. I then moved into the transmission delivery group, where I have managed distribution, substation, and transmission projects.

Q. Thanks. Brandon, as a project manager in the Transmission Delivery Department of the Company can you please describe for the Board the responsibilities that you've had with respect to this specific transmission project that is at issue here today?

A. Role of the project manager is to manage the overall scope, cost, and schedule for a project. Mr. Gerrard came to us, to my department, for -- with a project to build a transmission line from the Mona Substation area to Oquirrh and Terminal Substations.

My responsibility is to make sure that that

project is, is sited, permitted, designed, and constructed to company standards to meet the needs of our -- the essential needs of our customers for the Company, and to make sure that we provide a safe, reliable, adequate, and efficient system.

Q. Okay. When you got this project from Mr. Gerrard, I'll say how did you -- I know it was more than you, it's a team -- but how did you begin locating this project? What -- after you got the project what was the first step that you did?

A. The Company initiated a regional environmental feasibility study, which helps determine the ability to locate, and permit, and construct a project of this kind.

Q. Okay. And can you describe for the Board that process when you go through a feasibility study?

A. The feasibility study starts by defining a project study area to narrow down your research area. You then review a wide range of alternate transmission corridors and substation sites.

And you go through a comparison analysis process to determine where you are able to site those, those transmission lines and substations. And which corridors or potential locations don't meet the criteria that have been established, and which ones

should be eliminated from further consideration.

Q. Okay. The first thing that you identified was a study area. Could you describe for the Board how the Company determined the study area for this project?

A. Right. I've got a map up here on the screen. The map -- study area is determined by a combination of things. Topography. We have other -- terrain, slope. We have environmental factors, access, existing substation sites and locations. Main water bodies.

So you can see up on the screen -- let me switch my pointer. On the right-hand side up here, the dark dashed line is actually the project study area. Down here is the existing Mona Substation. We have the Oquirrh Substation, which is up here in the Salt Lake Valley. And then we have Terminal up here.

These existing substation sites helped establish the eastern boundary. You can see we have Utah Lake here, a large water body. We have some mountain ranges in here. So this was the most feasible eastern boundary for the project, based on where we had to go and the constraints we were given.

The southern boundary is defined by -- Mona Substation's as far south as we have to go, which

pretty much established the southern boundary. Over on the west side we have the West Tintic Mountains. We have some existing linear features over here. Highway 130 -- or Highway 36. We have railroad corridor.

As we move north we have the Stansbury Mountain Range. And the Tooele Valley is right in here. Then we have the Great Salt Lake, which is providing a boundary up on the northern edge, with the Terminal Substation located in the northeast corner.

Q. Okay. How did the Company begin to define potential transmission corridors within the feasibility study area?

A. The process begins by obtaining a data inventory. So you start gathering information that's readily available to the public by federal, state, and local agencies that's already been documented. You go combine those -- that information together to determine possible corridors.

So if you look at the map I've got here up on the screen, we have several potential corridors going from the southern area out near Mona to the north, up to a potential substation site in this area. So you identify whatever available information there is. Review those alternative routes. And ultimately come

up with routes that would -- you would carry forward in the process.

Q. Okay. Can you provide examples for the Board of specific engineering or environmental constraints that were identified during the study that established where those potential corridors would go?

A. Siting transmission lines, as far as engineering goes we look for the ability to get, you know, a line from one point to other. We have issues such as mountain ranges we have to deal with. Like I pointed out, we have mountain ranges down here in the Mona area. Again up here with the Oquirrhs.

Steep terrain is an issue. Being able to maintain access to the facilities that we need to get to. We also look at geotechnical soils. And then there's also environmental factors, such as the existing transportation plans, utility plans, land use plans that we obtain from the local, local agencies and state agencies.

There's biological resources, wildlife habitat, vegetation. We have geotechnical information, existing linear features, and cultural sites. All that information that's readily available by these agencies we accumulate and compile.

Q. Okay. I notice on here, Brandon, from what I

can see there are several routes or corridors identified. Is it fair to say that the Company considered more than one corridor in this process?

A. Yes. The idea was to identify potential locations for substation sites and transmission corridors. So you can see we've got, depending on which route you take, there are four, four or five different ways to get from the Mona area up to the northern portion where we need to get to site Limber Substation. And then get over into Oquirrh over here, and Limber up here.

Q. Okay. So you do a feasibility study. You identify some potential corridor paths. What was the next step the Company took towards siting this project?

A. You compile all the data that you've obtained. Put it all together in some sort of a GIS or mapping form. Lay out your transmission corridors.

And determine what opportunities you have to get a line from one point to the other, or what constraints are out there that would not allow a line to be built. And what engineering factors are played in. And whether or not you can meet the project purpose and need based on those restrictions.

Q. And were any of the preliminary corridors

that were identified eliminated during the feasibility study process?

A. Yes. There, there were a couple. Up on the screen I've got a map. If you can see on the right-hand side there's some dark-shaded corridors over here along the west side of Utah Lake. That is our existing Mona-to-Camp Williams high-voltage transmission line corridor. We already have lines running through there.

During the feasibility process determined that there's, there's a large, fast-paced growth out there for population. And it was determined that we would more than likely have to take homes in order to get our new line inside the existing transmission corridors.

It also didn't meet the requirements from, from what Darrell -- or Mr. Gerrard discussed earlier as far as creating a common corridor with these high-voltage lines. We there -- we then determined to eliminate these corridors from further consideration.

Q. Okay. So you established a study area. You did a feasibility study. You initially eliminated some of the potential corridors. Describe for the Board, if you can, what the next step in the process was after that feasibility study.

A. Once we determined what the feasible alternative corridors and substation sites were we approached the BLM, submitting a 299 application for the project.

Q. And when the BLM receives that application what do they do with that? What -- how do they get involved in the project?

A. The BLM reviews the project, the proponent's purpose and need, and the potential transmission corridor substation sites. Determines the impact on the environment and what level of analysis will be required to get the project sited and permitted.

Quite a bit of the project is on BLM property. They decided that a full Environmental Impact Statement would be required for the project. Which is, which is the most stringent environmental permitting process you can go through in the NEPA process. It's very detailed.

Q. And once the BLM determined that a full Environmental Impact Statement was necessary, how did they initiate that review?

A. They officially noticed the project submitting a notice of intent, which is published in the Federal Register in October of 2007. That established the public scoping dates where the project

was presented to the public.

There were three locations -- Magna, Tooele, and Nephi -- where the public was able to go review the project and provide comment on that. And that one happened in November of 2007.

Q. Did the BLM engage state or local government agencies as part of this process?

A. Yes. They, they approached state agencies and local agencies to be cooperating agencies in the process. Which allows a cooperating agency to participate during the scoping process for a project in the EIS.

It allows them to review documents during the development, provide input to it, and provide review. For instance, in a Draft EIS a report actually gets released to the public. The four counties involved -- Utah -- well, there's Utah, there's Juab, there's Tooele, and Salt Lake County were all invited to be cooperating agencies, but all declined.

Q. Okay. You know, we've made much about this Final Environmental Impact Statement and, you know, kind of how it's this standalone review. Maybe the best thing would be to ask you to describe for the Board the process that the BLM goes through to gather information and -- when they go through this EIS

process.

A. Base -- based on the input that the BLM gets during scoping and from the application from the proponent they go through a data inventory process. Where now they can go accumulate information from their own databases. Approach local agencies and jurisdictions to get information from them.

Up on the screen I've got a simple flowchart that kind of shows the Environmental Impact Statement process. Over on the left-hand side you can see this is the feasibility study time frame which the Company conducted.

Once we were done with the feasibility study we submitted our application to the BLM at this point on this dashed, dashed line up there. This is the point where the BLM takes the Company's application and determines, through the EIS, the impact that the project would have on the environment.

This is the point where the BLM performs their resource inventory based on scoping results. They go through an impact assessment based on the data inventory they've got and how the transmission corridors and substation sites would impact those.

Then they go through mitigation planning, where, if there is an impact to some resource, is

there mitigation possible before that? You go through that process, and then go through a comparison and ranking process where you evaluate alternatives and determine which ones are the least impactful.

You then go into a -- once you determine the route you go into the Draft Environmental Impact Statement, where this is the second time that the public is involved in providing comments into the project.

The resource inventory is detailed inventory along the transmission corridors. Mitigations are negotiated with the BLM and the Company. However, at this same time going through here the BLM is determining a preferred alternative for the BLM based on the impacts for the transmission line.

The Company at the same time is determining a proposed route -- a proposed alternative based on their requirements as far as the purpose and need. Those two are happening at the same time and parallel to this same process.

Then you get to a point where you will end up the Draft EIS with the BLM-preferred alternative, which with the final EIS now they've added a third, which is an environmentally-preferred alternative. Which is environmentally preferred on, on private

land.

And then the proponent will also come out with a proposed action of their preferred route.

Q. Okay. Before we move on I just want to maybe clarify a couple of things, Brandon. Is it fair to say that after this point in the process, after the Company submits its feasibility study, that the BLM is driving all of this? Is that a fair statement?

A. Yes, it is.

Q. And during this process does the Company get to direct the outcome? Are they able to influence the BLM's decision?

A. No. The BLM takes the proponent's application and drives the process to determine an environmentally-preferred route.

Q. Okay. Let's talk then specifically first about substation siting. One of the things that was discussed earlier was the location of the, of the substation. So following this process, can you help the Board understand what the BLM did to select a substation site?

A. The Company provided criteria as far as the substation requirements. The size of the substation that was needed, access, future use, and environmental impacts were incorporated into that.

The BLM goes and evaluates potential locations for these substation sites. And runs them through a comparison analysis to determine their impacts on the environment and to ultimately determine a proposed substation site.

Q. Can you show us the specific location that the BLM considered?

A. On the map up here on the screen, these are all the potential substation site locations that were evaluated. We have a new substation down in the Mona area which will be constructed approximately three miles south of the existing Mona Substation.

We also have a -- the new Limber Substation located up in the Tooele Valley area. It's actually located in the, in the southwest corner near the Tooele Army Depot. Which was evaluated and ultimately determined the BLM-preferred site.

Q. Okay. Brandon, one of the lines of questions that came up with Mr. Gerrard, and I'm wondering if you can help provide some light for the Board, is this concept of moving the substation around.

You know, "substation" means different things to different people. Can you give the Board an idea of the size of the substation that we're talking about today, the Limber Substation? What that would be like

to move around?

A. Right. The substation sites that we, we are evaluating and as the process moves along determined that these substations would be 500 kV, 345 kV, and also 138 kV providing the lower-transmission service in these areas. When we evaluated that, that need, a 150-acre site is going to be required for the ultimate build out of the substation.

The picture that I have up on the, on the screen is an example of the substation that the Company is currently constructing up in Downey, Idaho, as part of our -- the Populus-Terminal project that Mr. Gerrard discussed.

This area right here is solely a 345 yard, and what you can see being developed right there is just over 40 acres. So siting and permitting these substation sites is difficult to find a location that is suitable to meet our access and size requirements.

Q. Okay. Can you describe for the Board the BLM's process to screen and compare transmission line routes?

A. Yes. I -- on the map up here -- there were over 450 miles of transmission line -- potential corridors evaluated for this project. The.

Map up on the screen identifies two

different -- there's, there's some white lines that you can see. Those are transmission line corridors that were evaluated and eliminated from further consideration based on engineering and environmental requirements by the BLM.

The black lines are lines -- transmission corridors that were carried through the EIS process by the BLM for further analysis.

Q. Can you describe for us the BLM's process to ultimately select its preferred route and preferred substation site?

A. Once you identify which routes will be carried forward, the BLM takes that information. They analyze the data -- the remaining corridors, and determine the impact of the transmission line project on the environmental resources.

They go through a comparison and ranking process to determine which one is the least environmental impact and determines the BLM-preferred route and environmentally-preferred route.

Q. How did the BLM inform the Company of its preferred route and substation site at the time that the Draft Environmental Impact Statement was being prepared for release?

A. The Company was never made aware of what the

BLM-preferred route or substation site was going to be when it was published in the Draft EIS. Like, like I mentioned earlier, the Company's still moving forward determining what they believe would be the best route when it comes to the safety, adequacy, efficiency of the line.

The first time the Company was made aware of the BLM and the environmentally-preferred route was the release of the Draft EIS.

Q. Can you please describe how the preferred route selected by the BLM in the Draft EIS compares with the Company's proposed route?

A. When the Draft EIS was released there were a couple of areas of difference. However, the majority of the line the Company-proposed alternative and the BLM environmentally-preferred alternative were the same.

I've identified three areas on here where there were some differences. Area 1, located on the bottom of the map down near Mona, was an area where the Company's proposed alternative left the Mona Substation and went west over the Long Ridge Mountains.

The BLM's preferred route left Mona and paralleled the existing high-voltage transmission

corridor to the north for approximately 3 to 5 miles before heading to the west and joining up with the common alignment through this area, through the Goshen Valley.

The lines were similar from here up through the Goshen Valley, Rush Valley area, up towards Tooele. Area 2 here, when the Draft EIS was released the routes were identical, the Company's proposed alternative and the BLM's environmentally-preferred alternative.

The BLM approached us and asked that we make some minor adjustments through this area to accommodate some existing roads that would help minimize impact. We reviewed that with the BLM and ultimately came to an agreement through there.

The third area is up just east of the -- of Tooele near the North Oquirrh Management Area, which is this orange highlighted area up here, which is an area that's managed by the BLM.

We had proposed to run our new line up through this area paralleling the existing 138 line. The BLM's preferred alternative actually went south of this area, as they indicated that our proposed alignment did not meet the management plan for the NOMA. North Oquirrh Management Area.

And also a slight difference over here in West Jordan along the U-111 highway.

Q. Okay. So I guess starting at the top and I'll go backwards. In Area 3 did the Company ultimately modify its proposed route to meet the concerns expressed by the BLM?

A. Yes, the Company did. We, we found a route that actually went south around the North Oquirrh Management Area and adjoined our existing, you know, line as soon as possible to get down to the U-111 highway.

Q. And I believe you indicated in Area 2 that the Company was able to accommodate any recommendations the BLM had in that zone?

A. Yes, we were.

Q. And what happened in Area 1?

A. Area 1 was a situation that Mr. Gerrard discussed earlier about siting another high-voltage transmission line in the existing high-voltage transmission line corridor.

After discussions with the BLM, and explaining the risk associated with that and what the Company has to do to mitigate, if, if anything, if possible, the BLM recognized the importance of establishing a new line in that corridor.

Realized the risk that the Company is taking. And the possibility that, if mitigation was possible due to some sort of a problem with the lines, that we may be back again to try to get another line permitted.

So the BLM actually made an adjustment in this area and changed their preferred alternative to match that of the Company's proposed alternative.

Q. And that was to allow for line separation?

A. Correct.

Q. Okay. You know, before we go on, Brandon, one thing. We talk about this term "environment," what -- the BLM is looking at what's best for the environment. How broad is that term? What -- I mean, are we talking wildlife, or what is the BLM looking at or what do they include in the scope of the environment when they're doing their review?

A. The environment is a broad range of things in the EIS. It affects humans themselves, population, socioeconomics, in addition to the wildlife, biological, cultural sites. All the issues in the environment. Not just specific to vegetation or, or topography.

Q. Okay, thanks. So Brandon, at this stage we have the issuance of the Draft Environmental Impact

Statement. Does the BLM at that point inform the public of the Company's proposed route, of its preferred route, and any alternatives?

A. Yes. The release of the Draft EIS is the first release of those three alternatives. We have the BLM-preferred alternative, the Company's proposed alternative, and then in the final EIS we have a third environmentally preferred on the private property.

That's the first time that the Company had seen the environmentally preferred and BLM preferred, at the same time the general public was notified of it.

Q. Okay. And I know you've explained this, but just so we're clear. The environmentally-preferred route is the part that goes over private lands; is that right?

A. That's correct.

Q. And the preferred route is over federal lands?

A. The BLM preferred is over federal lands.

Q. Okay. So the BLM releases this to the public. Did the Company at that time provide any additional notification to the public regarding the potential routes?

A. Yes. In addition to the three public open

houses the BLM conducted, the Company also conducted three landowner meetings. We mailed out around 10,000 letters to affected parties within a mile of the center line, so a two-mile-wide corridor, to notify them of the project.

We held three meetings in three different places -- West Jordan, Tooele, and Nephi -- where the public was again able to come, comment on the project directly to us, ask us questions for the project.

Q. Okay. In addition to meeting with the public along the corridor, did the Company hold any meetings with community leaders or other key stakeholders at that time?

A. Yes. The Company initiated another round of community leader briefings, which -- they also occurred earlier in the project. But the Company met with folks from Tooele County, Tooele City, South Jordan/West Jordan Cities, Utah County, Kennecott Copper, Kennecott Lands, some other entities that -- just keeping them up to date on the project. That the Draft EIS had been released.

Trying to get any indication of concerns they have as far as what's in the document. And obtain that information. Move forward.

Q. What feedback was received from these, you

know, the community, specifically I'll refer to Tooele County since that's why we're here today, in response to the route that was released at this time?

A. Response for the overall project was, was very positive. Not many areas of concern. With Tooele County there was a handful of concerned citizens, along with some city representatives, that had a negative feedback regarding the alignment along the Southeast Bench of Tooele Valley.

Q. And what did the Company do to address the opposition expressed by these individuals?

A. The Company, the Company took, took this pretty seriously. They voluntarily initiated a resolution group to get together and discuss this concern, and try to come up with some sort of a consensus route through --

Although the route we had worked on for three years and run through the environmental process, we were confident that the BLM had chosen the right route through this, through this area. The least impact on the environment, and still meeting the purpose and need of the project.

However, we, we did meet with the folks to try to come sort -- determine some sort of reasonable alternative through this area that would be a

consensus amongst whoever we could get.

Q. Okay. And did these individuals or did the communities provide any specific routes to the Company that they would accept at that time?

A. Yeah. Initially there was a route that was proposed that we'll talk about later. The -- what we referred to as the Silcox Canyon route. It was an alignment up south of the Settlement Canyon area.

And eventually there was an alternative suggested to move Limber up north, near Grantsville. And there -- and those were the two main ones that were brought up. Just a general idea, not really anything official.

Q. Did the Company actually analyze the different routes that were proposed by the communities or the citizen groups?

A. Yes, we did.

Q. Can you describe for the Board all the various routes there within the Tooele Valley that you analyzed?

A. Yes, I can. Up on the screen we've got another map here that shows different routing through the Tooele Valley area. The green lines on the map are the BLM's preferred alternative and the Company's preferred route.

Here's Limber Substation, going from Limber up over to Oquirrh. And from Limber, up around Grantsville, over to Terminal. On the map you can also see some other colors. For instance, down here there's a blue route.

This is what I refer to as the "Silcox Canyon route." Where the line route would enter the Silcox Canyon, move over the mountain terrain here, back over into Middle Canyon, and eventually through Butterfield Canyon and into Salt Lake County.

The orange routes are what we refer to as the "Railroad routes." This, this was a group of alternatives that we looked at to try to follow the existing railroad corridor up through to Tooele City and find some way to get back over to the BLM's preferred alternative over here.

The yellow is what we refer to as the "Army Depot route," which was a route moving Limber up to the northwest corner of Tooele Army Depot. And going east through this area, again over to Tooele City area to try to find some way back over to Pass Canyon to the BLM's preferred route.

And we also looked at two options of moving Limber to the north, up around Grantsville. Running both lines up around Grantsville near the Great Salt

Lake. And then having the Limber-Terminal line proceed on its current alignment.

And having Limber-Oquirrh branch off here around Stansbury area, down through Erda area, and back over to the BLM's preferred route and the Company's preferred route.

Q. Okay. Can you highlight that other Grantsville route, that black route? I don't think we can see --

A. Right. Right here it's hard to see, I apologize. There's a black area right here. This is the actual -- another alternate substation for Limber we looked at. And then there's two lines coming out this way to the east where they join this green and blue line. And then eventually there's a black line that goes around here by Stansbury and down this way.

Q. Okay. Brandon, I'd like to have you describe for the Board, kind of route by route, the analysis that the Company went through or any concerns that were raised by the specific route. So if I could call your attention first to what we've described as the "Railroad routes." Could you please describe the Company's response to those routes?

A. Yes. Again, on the map we show the BLM and the Company's preferred routes through these areas.

The orange are the alternatives that were evaluated to go through Tooele City.

We met with Tooele Army Depot, the Utah Industrial Depot, Utah State, other, other folks along this alignment to try to find some way to get from here, up through the city limits, and back over.

There were, there were a number of issues with this, with this route. It's difficult to get through here. We have development up here, the Overlake Development, we met with those folks. We also have a junior high school in this area.

There's a helipad that's associated right in this area where the route would have to cross over Highway 36. And then we have -- we just have congestion through this area right here to try to get up to the Tooele City limits. And more impact over here for existing homes in this area.

Q. And ultimately were the railroad routes equal to the Company's preferred route as far as satisfying the criteria the Company had to build to?

A. No. There, there's much tighter constraints going through here. We were, we were literally on the doorstep of an Episcopalian Church going through this area. It would have been so confined. And then dealing with, with the schools and the development.

Overall impact, the Company and the BLM realized there's more impact going through there than there is actually following the BLM's proposed route.

Q. Okay. Can you describe for the Board the analysis that the Company did in looking at what you called the "Army Depot route"?

A. Army Depot route is similar to the Railroad route in that it -- the alternative ends up in the Tooele City area. Limber would be moved to the north, near the northwest corner of Tooele Army Depot.

We met with the Army Depot to see how far they would allow us to site the line within their property boundaries and still meet their operational criteria, because there's development right here in Grantsville City that's right up to the border. Right up to the property line.

So we were trying to look at feathering a line through here to try to get back over into the City limits, to eventually get back over to the proposed alternative. Again, we ran into issues with the, with the airport that is located right here.

The airport is a unique area. It's built in a hole. So when you, when you go to site your line through there they have height restrictions for the distance that you are away from the airport.

And if you move from the southern part of the airport towards Tooele City you actually gain elevation, so you're losing your ability to put taller structures in that area. So there's FAA restrictions right in here where we wouldn't be able to put a line.

The other alternatives are similar to the ones that were evaluated in the Railroad route, with the same restrictions and constraints.

Q. So ultimately were the -- was the Army Depot route acceptable to the Company?

A. No. This, this route is, is not any less impactful than the route that the BLM and the Company's proposed.

Q. Let's see, let's move on. One of the other routes you described was the Silcox Canyon route. Can you describe for the Board the analysis that the Company went through on that route?

A. Silcox Canyon was one of the first ones that was proposed. To enter Silcox Canyon, go up over the mountains back behind Settlement Canyon to a point about right here on the map that I'm pointing to. This, this point right here is approximately 9,500 foot in elevation.

And the steepness through this area right here, compared to what the steepness is on the BLM's

preferred and our preferred, is about twice as bad to get up through this area as far as access and access roads is concerned.

The route would then go down this hillside into Middle Canyon. It's kind of -- it's deceiving on here because this is made from a 3-D image, but right here, this is Tooele City. This is Middle Canyon Road as you're heading east.

And it's going through the canyon right here. It turns into Butterfield Canyon at the Salt Lake County boundary. And then continues around here up through north and to Oquirrh Substation.

This area right through here is actually within Kennecott Copper's permitted operations for mining and exploration. It's actually permitted on both sides of the road.

So issues -- issues with this route were over double the steepness of terrain for access and disturbance through this area. Which, when we reviewed the area, the BLM determined it would be more impactful on the environment up there.

And the idea of having to go through Kennecott operation's permitted sites and to have to compensate for the impact to the minerals in those locations created a huge cost increase through that

mine route.

Q. You know, you talk about this peak in the high, you know, peak. What, what's the concern the Company has? What's the problem with putting a tower at 9,500 feet?

A. Anytime you put a tower up there you have operation and maintenance issues. You're exposed to much, much more severe weather up top. On top of a mountain like that.

Access, getting to those points. If there is a problem on the line, if we have to make repairs on anything, being able to get up there, there's -- most of the months you would not have access to that area up there to make repairs.

Q. Okay. What if the Company, to avoid that, simply put this line either on -- I don't have a specific route. But you drop down in this area, so you kind of split the difference, and then picked up. Would that solve the problem by avoiding that peak right there -- or maybe that's the peak -- if you came down in this part?

A. It makes one of the situations better with the elevation. I mean, you -- we can get down a little further down into here. However, we still deal with the steepness of the terrain through here for

access roads.

And it also puts the line higher up in the watershed area, which would be more of an impact to the watershed than where the line is proposed right now.

Q. So ultimately, Brandon, was the Silcox Canyon route acceptable to the Company?

A. No, it was, it was not.

Q. Let me have you then describe for the Board -- you described two different Grantsville routes that the Company considered. Let's talk about the first option that the Company analyzed.

A. The first option was suggested during one of the resolution meetings to move Limber Substation up to the north around Grantsville. So you can see the, the red up here is where Limber would be sited in this area.

We would then run both lines -- Limber to Terminal and Limber to Oquirrh -- to the east in a common corridor up through here at this point, where we would then break. And the Limber-to-Oquirrh line would head south, right here near Stansbury area.

Go south, down through the Erda area, down through lower elevations of the NOMA, North Oquirrh Management Area, and back over to the BLM and

Company's preferred alternative.

This, this alternate was researched. You can, you can see by the, by the map the soils that are in the area. Highway 138 goes through this area right here and pretty much creates a point where anything north of there -- this is all lake-bottom soils through here.

You kind of see some areas where the, where the soil looks a little bit better? We -- "postage stamp areas," we refer to them. Those areas look, look better on the surface, but you go down a few feet and it's all the same type of soils in this area.

Unsuitable soils. Difficult soils to build in. Creates a lot of engineering hindrances and mitigation you have to do to build in such an area like that.

We also would have to have both of these lines in a common corridor to get out of here. This, this plant right here is the southernmost point of our transmission lines to meet the minimum guidelines for the FAA for the airport that is right here.

So a second line that would have to be permitted would have to be moved to the north, which puts us out into this area of the lake. The lower elevations, the high flood area. Areas where there's

more potential for if the lake got high. For instance like it did when, when Mr. Gerrard was, was talking.

We also had an existing 138 line out here years ago that we had to relocate due to the high water table.

Q. Ultimately then was the -- that Grantsville route acceptable to the Company?

A. No. The location of Limber Substation in that area, it creates too much of an engineering hindrance. And an inability to build it efficiently and be able to maintain it efficiently. Also it creates the common corridor where Mr. Gerrard stated that it puts the system at more risk than the Company is willing to accept. So the route was not acceptable to the Company.

Q. You know, we, we've talked about today, you know, these standards of reliability, efficiency, safety, and adequacy. Which of those prongs did this route offend? Was it less efficient, less reliable? Which prong troubled the Company here?

A. It's actually both. It's less efficient. If you look at moving Limber up to here rather than having it down here, you're creating an additional 16 miles or so to get from here to Oquirrh compared getting from here up around and to Oquirrh.

Based on, based on Mr. Gerrard's testimony, that's a less efficient system when you're adding that much miles to a line. We want to get as short as possible in order to maximize our efficiency.

The second part, reliability, also creates a risk to the Company by having two lines in a common corridor.

We have other hindrances up here with the lake bed soils. The high water elevation of the lake. And we also have the airport in that area, which just adds to the risk of having them both in the same corridor.

Q. And notwithstanding the concerns of this route, would this route cost the ratepayers more or less than the Company's proposed route?

A. It would. Based on the soils and the line miles that would be added, it would cost more to build the substation. These, again, these substations are planned to be 150 acres, and you have over 200 foundations in these substations. So foundations have to be deeper, they have to be bigger.

Compensate for the soils. Removal of the soils and -- to bring in more stable material to build a good base for the substation. We had estimated that it would be around 40 million, 43 million dollars more

just for the foundation work for Limber Substation in that location.

Q. Brandon, why don't you describe for the Board then the second Grantsville option that the Company considered?

A. Based on the soil types in the first option here, we also looked at Limber Substation up behind the Wal-Mart Distribution Center. This was a site that was also analyzed in the EIS as an alternate, based on having Limber-Terminal go this way and Limber-Oquirrh go back down this way to Oquirrh Substation.

This site's higher up on the bench behind Wal-Mart Distribution Center, however, it has some concerns with drainage in that area. I don't know if anybody's been up to see the Wal-Mart Distribution Center, but they have a huge moat built around their facility to capture drainage coming off of the hillside to divert the water away from their building.

So there's a huge amount of drainage issues that we would have to deal with with the substation right there. However, the soils are, are more suitable to build in in this location. We would have to do some site work. Maybe tier the substation.

But it also creates between 8 and -- 8 and

10, 17 miles, I think it's 17 miles on this one, to parallel these lines in the existing corridor again up around Grantsville, back to the same situation as Option 1.

So we're creating a situation where we have our lines in a common corridor again through the same hazardous areas as Option 1.

Q. And ultimately was this second Grantsville route acceptable to meet the Company's needs?

A. No. The risk to reliability and efficiency to get over to Oquirrh, this route was not acceptable to the Company.

Q. Brandon, during this process did the Company exhaust all of the proposed alternative routes that the communities and key stakeholders asked the Company to look at?

A. Yes, we believe we did. We, we believe that the BLM has chosen the best route. The Company has chosen the best route. And although the other ones were, were not preferred over ours, we still went through the process of evaluating these areas. And we believe from the information we've been given that we've evaluated all of them.

Q. Did the Company make any adjustments to its proposed route as a result of community input?

A. Ye -- regarding through the Tooele area between Limber and Oquirrh, we did make some adjustments based on the feedback we got during the comment period of the Draft EIS from, from citizens, from concerned folks' representatives.

You can see right here we made an adjustment right here. There's a gravel pit operation right here. We're dealing with gravel pits on another project and we're, we're avoiding the areas as much as possible to not impact future operations of the gravel pits.

So we made an adjustment to the southern boundary of their operations. A slight adjustment here for another gravel operation. And then we also shifted our alignment from about here over to Middle Canyon area. We shifted the line approximately 1,000 feet to the south.

We are -- the route is no longer going over the top of Settlement Canyon. It goes along the southern edge of the reservoir -- not the reservoir, I misspoke. It's now on the southern edge of the reservoir and it is hidden behind the next ridge over through this area.

We tried to minimize the visual impact as much as possible through this area. And then we

daylight again and come back over to Middle Canyon.

Q. And were these adjust -- adjustments the Company made acceptable to Tooele?

A. These adjustments were adjustments that were submitted in the conditional use application to Tooele County, which was denied, so I guess it's safe to say they -- it was not acceptable.

Q. Before we go on can you show the Board, using your laser pointer, the approximate area of the -- the part of the line that's in dispute. Where is the concern?

A. Right -- the concern starts here, near Settlement Canyon Reservoir, and goes east along the South Bench, and crosses Middle Canyon, and goes along the East Bench right here. So we've got a distance here of approximately three miles of the route that's really what's in contention.

Q. So I take it this part of the route is not opposed?

A. No. We've had no opposition for the Limber-to-Terminal route as we were trying to permit it through the EIS.

Q. And so the whole proceeding is really around that area right there?

A. Yes.

Q. What do you understand is the primary concern, as it's been expressed to you, that the citizens and communities have with the route? What's the primary concern as you've heard it expressed?

A. Based, based on the research, and the EIS, and impacts, the initial contention started with visual impacts going through the area. So I'd say visual.

Q. And are you aware of any study that anyone has done to determine what the actual visual impacts of this line will be in that specific area of contention?

A. As the, as the Company and the BLM were moving through this process of trying to find resolution through here the BLM actually had some visual simulations produced -- which is, which is common practice in an EIS -- to demonstrate what the, basically the before and after would be on a project of this sort.

On the top here we can see that this is, this is a viewpoint that's just north of Skyline Drive, looking to the south up on the south bench. This up here is the before. So this is current conditions. There's, there's no line constructed through this area.

Now, I believe the Board has these in their hands, and it is difficult to see on here. But on the, on the bottom drawing you can see two structures right here. Now, the adjustment that was made, the line as it heads to the west here, back here goes behind the hillside to minimize the visual impact to that area.

The next structure that comes up over the hill, there's actually one right here and there's one right here as they go through here. Now, I would like to ask to keep in mind this, this demonstrates the project after vegetation is allowed to regrow. Three to five years after the project. Reclamation's occurred, and everything is able to reestablish.

Q. Do you know what on this doc -- well, first of all is -- let me clarify. Is this -- whose representation is this? Is this the Company's or the BLM's representation?

A. This is a simulation put together by the BLM.

Q. Okay. And just to clarify for the Board how they go about doing that, can you identify kind of in this scale what information is provided to the BLM to allow them to determine what they think it's gonna look like after construction?

A. The Company provided the typical design

structure for the transmission towers. So the areas over on the right-hand side here are the typical structures that would be constructed through this area.

We gave them the dimensions and design parameters for those structures. We also provided an access road plan which was developed. And they applied the mitigations and the results of the EIS to that to determine what the outcome would be on the project.

Q. Another area that was -- had a lot of vocal resistance was the area of the impact around what's called the "T" out in Tooele. Can you describe what the visual impact would be at the "T" based on the BLM studies?

A. Right. That's, that's the map I have up here right now. This is another visual simulation that was produced by the BLM. A viewpoint looking to the east, up on the East Bench. You can see the "T" up here on the hill. This, again, up here is the, is the before picture.

You can see that we do have an existing 138 line going through this area. There's a structure there. There's another one over here. There will be another one over there.

On the bottom is the after. And I, I apologize, this is difficult to see. But there is a structure right here on the proposed alignment. It comes over to a point about right here. You can kind of see an area right here where an access road was constructed to get to that structure.

That structure is over here. And then it drops down and falls through this existing foliage through here just below the "T."

Q. Brandon, I just want to -- maybe I could call it playing devil's advocate for a minute. I think looking in the handout is probably the easiest for the Board. For the rest of the room, to the extent they can see on the screen.

Your before and after pictures there is a tower here kind of in the -- this grass area that's clearly visible. And in the after photo produced by the BLM for your towers again we can kind of see where they are.

Why are these towers so clear, but you can barely see what is supposed to be the proposed towers? That might lead us to believe these -- we can't rely on these pictures. Why are those existing poles so much more visible than what you're proposing to do?

A. We sited the line higher up into the existing

foliage to hide the lines as much as possible. The access and restoration that would be done here would be less visible. And the poles themselves, the structure, the finish we have on these, the, the weathered steel blends in better with the background.

So we intentionally sited the line up here a little further to stay inside the foliage, rather than being down in this area where they would be more visible.

Q. And are these pictures that you provided contained in the BLM's filed Environmental Impact Statement?

A. Yes, they are.

Q. All right. Brandon, I want to shift your focus a little bit now to talk about the permits the Company is required to obtain. What specifically, what permits along the entire project will the Company be required to obtain before it can begin construction?

A. We have the record decision from the BLM. And we have four conditional use permits. We have conditional use permits required at Utah County, West Jordan City, South Jordan City, and Tooele County.

Q. And of those permits, which have already been obtained by the Company?

A. Conditional use permits from Utah County, West Jordan City, and South Jordan City have all been obtained.

Q. So the only one that has not been issued of the conditional use permits is Tooele's?

A. Correct.

Q. What is the effect of Tooele County's denial of the Conditional Use Permit on the project?

A. The, the effect impairs our ability to start construction on the project to meet the requirements that Darrell outlined in his testimony to meet a June 2'13 date -- 2013 date before our system starts operating in a capacity that's beyond what it's designed for.

Q. Brandon, you've describe for the Board your background and experience in this. You've shown the Board the different routes that the Company has examined that are not acceptable to the Company.

If the Company was required to start a process over looking for a new route. In other words if the Board were to say, Hey, you don't have to do the routes you rejected, but let's send you -- go somewhere else and come back and report. How long do you estimate it would take to site, engineer, and permit a new route?

A. Based on what the Company's gone through the past three years -- the EIS is a very detailed, thorough process. It evaluates the impacts to the greatest extent possible. There's a lot of detail. A lot of involvement in the -- in choosing a preferred alternative by the BLM and the Company.

In this case the Company's preferred alternative and the BLM's preferred -- or the environmentally preferred were the same through here. Which indicates that it's, to us, the best route possible.

Based on all the input that we've gone through, and -- there's no reason for me to believe it would take less than a year to try to site a new line that would -- may or may not have less impact. But from what we can see, this is the least-impactful route possible.

Q. And Brandon, based on the information provided to you and your team by Mr. Gerrard, what do you believe would result from that delay if you had to delay an additional year before you could begin this process?

A. I think Darrell pointed it out pretty well. Outlined it in his testimony. That the system, if we're not able to meet our date, June 2013 the system

will stop operating beyond what it's designed for. Create damage to equipment trying to operate at those high levels.

Cause -- we won't be able to maintain our system. Can't take outages, as Darrell described. And wouldn't be able to meet the needs that we're required to meet as far as the Company's customers are concerned.

Q. So simply stated, Brandon, what relief are you seeking from the Utility Facility Review Board today?

A. We're asking, based on all the input and work that has gone into this project as far as permitting the most environmental -- least environmental-impactful route that meets the Company's purpose and needs, to have Tooele County issue a Conditional Use Permit for the alignment that will allow us to meet our customers' needs.

Q. You -- take us back two slides, if you can, to where you showed your route and the area that was in contention.

Is there anything further that the Company is willing to do in this area to accommodate the concerns of Tooele's citizens?

A. I, I think the Company's demonstrated their

ability to work with Tooele County when we accepted mitigations that were required by the Tooele County Planner during the Conditional Use Permit process.

There were 22 conditions that we were asked to abide by. We agreed. Plus an additional one, for 23, was added that we also agreed.

Q. Okay. Just want to make sure in case the Board's not familiar with that process. What mitigation factors were proposed by who, when? Just in case the Board -- to clarify for them what you referred to.

A. The Tooele County Planner, as part of the Conditional Use Permit, had stated and asked the Planning Commission of Tooele County to approve the Conditional Use Permit based on 22 conditions that he had identified during his review.

There were no specific mitigations that were requested of the Company for specific things. However, we had acknowledged those conditions and agreed that we would mitigate to meet those conditions if the permit was approved.

MR. MOSCON: Thank you.

Mr. Chairman, I would move for the admission of Mr. Smith's testimony. And be willing to pass the witness for any further questions of the Board or

opposing counsel.

CHAIRMAN BOYER: Is there any objection to the admission of Mr. Smith's filed testimony?

MR. HOGAN: None, Mr. Chairman.

CHAIRMAN BOYER: Okay, it will be admitted.

(The prefiled testimony of Brandon Smith was admitted.)

CHAIRMAN BOYER: Mr. Hogan, how much redirect -- or cross examination do you anticipate?

MR. HOGAN: At least a half an hour.

CHAIRMAN BOYER: Perhaps this would be a good time to take a break to rest our reporter. We'll take a ten-minute break. We'll come back and you can commence your cross examination.

(A recess was taken from 2:22 to 2:43 p.m.)

CHAIRMAN BOYER: Okay, we're back on the record. Mr. Hogan, cross examination.

MR. HOGAN: Thank you, Chairman.

CROSS EXAMINATION

BY MR. HOGAN:

Q. Mr. Smith, I -- you can see from the slide that I've pulled up I've backed your presentation up to -- it's not the first slide. But I wanted to start here, and then we'll go back, and then we'll -- I'll follow the same linear approach that you had in your

initial direct testimony. Okay?

A. Okay.

Q. In talking about the feasibility study that was done -- well, actually before we talk about the feasibility study.

There was a, there was a step that you talked about that I don't see illustrated on this slide, on this flowchart. I believe the words you used were that the BLM reviewed the proponent's proposed purpose and need for the project. And that that was -- information was provided to the BLM right at the outset. Is that correct?

A. Correct.

Q. Okay.

A. Correct.

Q. Would the purpose and need for the project include details like minimum separation for running lines parallel to one another?

A. They, they have.

Q. They have? So --

A. Yes.

Q. -- that was part of the information that was provided to the BLM?

A. I don't recall if actual 1,500 feet was put in the application to the BLM.

Q. Okay. And that would have happened before the very first element that's on this flowchart, correct?

A. Correct.

Q. Okay. So aside from all the specific expertise the BLM has in gathering data about the environment, and the terrain, and all their in-house experts, they really -- it sounds like they really rely upon the project proponent, in this case Rocky Mountain Power, for technical details about what can and cannot be done with respect to the project; is that correct?

A. They -- yeah. They, they do not have any engineering staff as part of their, their permitting process.

Q. There's not a single electrical transmission engineer working for the BLM?

A. Not that I'm aware of.

Q. Okay. All right, do you have your clicker?

A. Yes.

Q. Could you, could you back up one slide, I believe? And this will work.

What I'm curious about on this, on this particular slide is I believe that kind of the mustard-color looking spots are spots that are

identified as potential substation locations; is that correct?

A. Correct.

Q. And the -- in the upper left corner, the spot that's the farthest north and farthest west, is that a potential substation location that was identified by the BLM?

A. It was identified in the feasibility study.

Q. Okay. Was, was -- am I incorrect in stating that that was the BLM that did the feasibility study?

A. No, the Company did the feasibility study.

Q. Okay. So the Company identified that as a potential spot?

A. Correct.

Q. Which this is significant to me in that that is the location that local government, local jurisdictions, would like to see the substation built. Okay? Can we go now to, um.

Yeah, can -- while we're, while we're -- before we leave this slide, can you use your pointer and show where Limber is in -- on this slide?

A. Limber, as we applied and in the EIS, is located in this area right here.

Q. Okay. And I notice -- I mean, I'm pointing out the obvious -- but there's no mustard color there,

correct?

A. Correct.

Q. Okay. All right, let's talk a little bit about the EIS. The Final Environmental Impact Statement that's come out now. I'm gonna refer to page 2-16 of that, of that document. There's a route that's talked about, it's described and labelled as the "Environmentally-Preferred Route." Okay?

And they call it "Alternative H." But I believe, and in looking at, in looking at that route and what's been discussed, that that most closely mirrors what you have contained in your testimony as one of the Grantsville alternatives. Would you say that's correct?

A. That is not correct. Alternative H I believe was for a line, one line going to Limber. To -- from Limber to Terminal.

Q. For a single line?

A. Right.

Q. Okay. So they've, they've labelled that as the environmentally-preferred route?

A. For Limber to Terminal.

Q. For Limber to Terminal?

A. Uh-huh.

Q. And did the Company voice objections about

how difficult the construction would be because of the soils?

A. From Limber to Terminal?

Q. Yes.

A. We identified those during the analysis.

Q. Okay. And do you still plan to build the Limber-to-Terminal section in that general area?

A. Yes, we do.

Q. Okay. Despite the fact that it's got this poor soil?

A. We realize it's got the soils that it has. However, you know, we realize that we will not have two lines in there, it will just be one line.

Q. Okay. But the Company has the ability to build towers that can withstand the poor soil conditions? And I understand that one of the geotechnical terms is "liquefaction." If we have an earthquake, an incident, those, those soils are loose, you -- the Company can design towers that can withstand that?

A. Yeah, it would be hard to deny it. We do have lines in those conditions.

Q. Okay. Can you flip forward to your slide that shows the three areas where the BLM had changes they requested?

A. I'm trying. Right there.
Q. Okay. You mentioned that in Area 1 the BLM had requested a change. And that once you explained the difficulty that came with co-locating, the BLM backed off that request and they went with the Company's proposed alternative; is that correct?
A. Correct.
Q. Can you tell me the population of the immediate area within that circle?
A. I do not know the exact population, but it is not very populated.
Q. Would it be greater than 75,000 people?
A. I, I, I don't know. I couldn't answer that.
Q. Okay. Would it, would it have affected the analysis of that decision if, for instance, the county seats for that county were right in that immediate area, and the county's -- or -- and that city's watershed was in that immediate area, and the other factors that seem to be present with the Southeast Bench were also factors that were present in that area?
A. It would have been included just in -- the EIS, just as it was for the area you're explaining.
Q. Right. So I guess the question I'm asking you is, do you think the BLM would have backed off the

co-location request if all those same factors had also been present in this area, which it appears they were not?

A. I, I can't speak to what the BLM would have, would have come -- what the result would have been.

Q. Okay. There's certainly a chance it would have been different?

A. Possibly.

Q. Okay. You, you've characterized the public opposition to the Southeast Bench route as a, as a handful of residents. Could you be more specific what you mean by a "handful"? I mean, that might be one thing for one person and something completely different for somebody else. And I'm, I'm not sure exactly what you're meaning by that.

A. When we started the conflict resolution meetings to discuss all of these routes there were only a handful of concerned citizens who were present at those meetings. So between five and ten people.

Q. Do you think that's atypical for the front end of a, of a project like this, that just a few people are concerned and show up to the meeting? Or do you think that's normally what happens?

And that, and that -- I guess let me follow it up. That opposition increases as people sense the

seriousness of what's proposed increases?

A. We saw the, we saw the folks' reaction on the release of the Draft EIS. That is when the public voiced most of their concern.

Q. At this point in time, as of May 10th, would you characterize it as still just a handful of people that are opposed to the Southeast Bench route?

A. When I referred to a handful, those were the folks that we dealt with on a, on a basis of meeting in meetings and discussing routes.

Q. Right. And I'm asking you now to compare the opposition -- the public opposition to the Southeast Bench route to what it was when you started the process. Is it greater or less?

A. It -- from what we -- from what I can tell, it's greater from when we initiated the project back in 2007.

Q. Would you say significantly greater?

A. I -- it, it's much greater.

Q. Okay, thank you. Will you go to the slide that illustrates the Silcox route?

I imagine with each route that's considered there's certain areas of the criteria evaluated where they were very strong and very much a contender, and then other areas where they were very weak and the

criteria would tend to eliminate those routes.

With respect to the Silcox route, besides the altitude and the access roads isn't it correct that the -- one of the primary, and in fact probably the primary reason this route's eliminated, is because of the mineral rights impact and the cost of right-of-way acquisition with Rio Tinto?

A. I would not say it's the primary reason. The -- these routes were balancing engineering, costs, environmental impacts, for each alternative.

Q. Okay.

A. And to say that one is a primary, I can't say that cost through -- due to Kennecott was a primary concern.

Q. Okay. Well, let me -- I guess let me rephrase it. We'll go through some of those criteria. Is wildfire a high potential on this route?

A. Wildfire is a potential on every route.

Q. Cert -- certainly most so -- more so in mountainous areas with vegetation that are difficult to access and fight fires?

A. In areas of high vegetation the fire impact is greater; however, we have mitigations for that.

Q. Okay. So altitude -- let's, let's, let's be real direct. Comparing this to the I-80 Corridor,

which one has a higher potential for wildfire; this route or I-80?

A. Based on the vegetation up from Silcox Canyon through there, I would say this route has a higher potential.

Q. Which one is easier to fight a fire in? Along I-80, where it's flat and there's easy access for any type or piece of equipment, or on this mountain route?

A. I'm not a firefighter. I would -- my opinion --

Q. I --

A. -- this possibly would be more difficult up here, due to terrain.

Q. Okay. Are those both common traits, the terrain and when it comes to firefighting potential, for the Southeast Bench route that's been requested as well as the Silcox route?

A. They have been evaluated in both routes.

Q. Okay. And is the fire hazard and danger greater with both those routes than the I-80 Corridor?

A. I, I would imagine that information is in the EIS. I don't know the exact ranking for the fire.

Q. Okay.

A. But.

Q. I mean, you're the project, you're the project engineer. I would think that you'd kind of know that -- if you don't know the exact score, you probably know that this one was higher or lower.

A. I do not know every single detail in the EIS. I mean, there's three years worth of data in there. And when we choose routes it's not based on one specific score, it's a compilation of scores. Based on the vegetation, this would more likely have a higher impact for fires based on I-80.

Q. Thank you. Based on terrain -- once again this seems obvious, but I want to make sure we're clear on this.

Based on terrain, are firemen going to have an easier time getting to the Southeast Bench route or the I-80 route to fight a fire?

A. Are you specific to fires during construction, or --

Q. Any, anytime.

A. -- fires anytime?

Q. Anytime.

A. We have mitigation measures for fires along the transmission lines as far as vegetation management. So fighting fires during those times would not be as difficult.

Q. Just, just from an access and repair standpoint, five years after the line's built where's it gonna be easier to fight a fire and make a repair; on the Southeast Bench route or the I-80 route?

A. If we have access roads still available that meet our company standards, then those, those folks can use our roads to fight the fires.

Q. Where are the access roads going to have a greater impact visually, on the Southeast Bench route or the I-80 Corridor?

A. Visual impacts, it depends on the level of vege -- revegetation that's required. There's --

Q. Well, we --

A. -- obviously not as much steep terrain to deal with on the I-80 Corridor. However, we do have significant wetlands we have to deal with.

Q. And we do live in a desert. The regrowth, I think you made the statement that it would regrow in three to -- was it three years? Three to five years?

A. Three to five years.

Q. Three to five years? Do you think that's an accurate estimate for our, for our climate and our, our conditions in this area?

A. That is the current revegetation plan according to the BLM.

Q. Okay. Let's take a look -- will you go to the slide that shows the Grantsville route?

Now, I remember the meeting, I recall the meeting where this was requested. In one of these problem solving meetings we requested a route where the Limber Station was moved to the north.

It appears, it appears that the location of the proposed Limber Substation has been -- it doesn't look like to me that it's in the same spot as it, as it was identified in the feasibility study. It looks like it's moved further east. Would you say that's accurate?

A. This is not a location that was identified in the feasibility study.

Q. No, it was not.

A. Right.

Q. This was requested by local people.

A. Right. This is not the same location.

Q. Okay. Why, why is it that when we requested that the substation location be analyzed from a more northern point, why is it you did not rely on the information that had already been gathered for a good substation location which showed further to the west, up out of the poor soils; why did you instead choose this location?

A. The substation site you're talking about further to the north and the west did not meet our criteria or efficiencies for constructing the line. That site was eliminated early on. We did not want to have two lines in parallel conditions up north. And it did not meet the efficiencies by adding additional line miles.

Q. So the Com -- the Company's own criteria that the Company set eliminated it from consideration?

A. Correct.

Q. Okay. And in looking at this route -- I don't have a pointer, but I'm gonna, I'm gonna stand and show you.

If the substation were instead placed anywhere out in this area. I mean, obviously before you get to steep, steep inclines where there would be some excavation work. But if it were placed out in this area, isn't it possible to achieve much greater separation than what's currently depicted? Coming out of that substation?

A. Separation --

Q. Separation of the lines.

A. -- at what point?

Q. If we had two lines, just as you've got proposed there. Two lines leaving the substation. It

looks like, it looks like -- I'll be frank. This looks like what I would see if I asked a contractor to bid a job and he didn't want to get the job.

For instance, in the building that I'm presently located, when the State built the new Courthouse where my office is we asked them to include a bathroom after the project was already well underway.

Layton Construction was very eager to get to the, to the soccer stadium job. They didn't want that job. The price they gave for the bathroom was $78,000. Okay? That was a bid that showed they clearly did not want to get the job.

It looks like to me that with the placement of the substation where it is, and then immediately going to minimum separation along the I-80 Corridor, this looks like an attempt to placate the locals by saying, We're seriously considering this alternative, but then turn around and drawing it such that it would never meet your criteria and you would quickly dismiss it. Am I, am I way off base on that assertion?

A. This was a, this was an option that was asked for us to analyze. That is the location that Limber Substation was asked for us to place.

Q. I don't believe that's the correct location.

I -- and for the sake of talking about it today, assume that it's up there where I pointed. If we, if we put the substation up in this area, and then the green line stayed exactly where it is right now.

A. Uh-huh.

Q. Wouldn't it be possible for that red line to come right down here where it presently is. We'd have well more than the, than the separation you've indicated right here. And the choke point would clearly be right here, where you've said there's an impact from the airport.

But instead of it being nine or ten miles of minimum separation it would maybe be a few hundred feet, a fraction of a mile, where we've got close separation. And then the lines could separate once again.

Wouldn't it be -- would it be possible to draw what I've just described? And, and to build the line in that fashion?

A. It would be possible to draw it. Possibly build it. But it will not meet the criteria which Darrell -- Mr. Gerrard went over in his testimony. We are not building two lines in a corridor up in that area.

It places a huge risk. And it also does not

enable to us operate our system efficiently. And you're adding miles onto the line to get to Oquirrh Substation.

Q. Who set that criteria for the minimum separation?

A. Which criteria are you talking about?

Q. Whatever the number is. Whether it's one tower span, whether it's 1,500 feet, whether it's one mile. Who set the criteria that the BLM looked at when it, when it analyzed routes?

A. It's not, it's not just the, it's not just a span length, the distance between the lines. It's having a common corridor. So to deal with the specific distance between the lines, it's not that, it's not that straightforward.

Q. Was that element of the plan dictated by Rocky Mountain Power or by the BLM?

A. The 1,500 feet was mentioned by the Company, as Darrell explained, as far as the criteria.

Q. Okay.

A. However, down by Mona the BLM understood the risk associated with that. And you can see that they changed their idea -- their opinion on that.

Q. Okay. So it appears that it's self-imposed criteria or limits that have eliminated this route.

The Company's decided that's a risk the Company doesn't want to take. Is that an accurate way to describe it?

A. It is not a route that the Company would build.

Q. Okay. With respect to the airport, is there something magical about property owned by the airport? I mean, we're not talking about Salt Lake Regional Airport here or Salt Lake International Airport. It's a very small airport. You've seen it firsthand, correct?

A. Correct.

Q. And you do have the ability to condemn property, correct? As a company, as a public utility?

A. To condemn property, yes. I am not familiar with property owned by the FAA. Or whoever owns the airport.

Q. By Salt Lake City Corporation?

A. I am not familiar with that.

Q. And with your present proposal you intend to condemn property owned by Tooele City. I would think that it's no different with Salt Lake City Corporation than it is with Tooele City. Yet the limitation of being able to impact the airport has seemed to become an insurmountable hurdle.

Now, I can understand why that would be. I think it's much like the mineral rights. It probably costs a lot more money than a regular residence to condemn, correct?

A. I'm not familiar with the condemnation rates or not. It's not our first option to --

Q. Do you think an airport, an airport is more valuable than a residence?

A. I can't speak to the value of the property.

Q. Okay. Would you mind going to the slide that shows the photos that were prepared? The --

Now, I know on your direct you took great care to point out to make sure that we could actually see that something had been superimposed there. Do you think I would be accurately describing the photo on the bottom if I said that these look as impressive as any ad for cosmetic surgery that I would ever see?

Are they, are they that impressive? I mean, if this was teeth whitening or if this was a tummy tuck, this is incredible. Would you agree?

A. It, it does look nice.

Q. Okay. And, and you believe that the vegetation will regrow to this state in three to five years, and at our latitude in this part of the desert?

A. Like I discussed before, this is imagery produced by the BLM. They have experienced professionals who have done this for years, and years, and years, and years. And we -- it's the BLM's determination that that's what they expect that to look like.

Q. Right.

A. It's not our interpretation.

Q. Do you think it's realistic that the 138 poles that are down lower on the next slide -- would you go to the next slide?

The 138 poles that show up right down here in the photo. Now, I know there's not the same color of vegetation. But do you think it's realistic that those 138 poles down against the toe of the foothill are more visible than the poles that you indicated that would be on a ridge line?

That -- do you, do you think that's a realistic representation?

A. I'm just going off, off what I see. I mean, we intended to leave the proposed route up into the foliage to help blend the line in as much as possible. If we have it down below it is obviously gonna be more visible than what it is right now.

Q. Towards the end of your testimony you

mentioned that one of the important factors that necessitated the Company's selection of the Southeast Bench route was timeline. Is that, is that accurate?

A. Timeline is one factor.

Q. Okay. If Tooele County were willing to give you a permit right now, today, I mean prior to this hearing, but the, but the -- from the Company's standpoint the cost would be needing to co-locate those lines for even a short portion. Less than a mile, or possibly for a few miles.

Would that consideration -- because I understand there's a weighing that goes on on all these route selections. If Tooele County immediately offered up a permit for that route that's the route that I've described today as we, as we've discussed, would that be more important to the Company than achieving maximum separation of the lines?

A. You were talking about the Limber Substation up north?

Q. Yes.

A. With both lines to the east?

Q. Yes. That's exact -- that's exactly what I'm talking about.

A. Based on the criteria I've been given to site this line and permit it, co-locating lines is an

unacceptable risk that the Company is willing to take.

Q. Okay. I'm a little bit troubled by that statement. And it's not from your testimony. But you were present for Mr. Gerrard's testimony, correct?

A. Correct.

Q. I believe he stated that if the Company had purchased in advance the right-of-way, the Company was okay with co-locating. When the Company had the foresight to acquire the right-of-way in advance they seemed to be just fine co-locating routes for a period of distance.

But, but in this instance the Company's completely unwilling. Even if, even if it was just the pinch point by the airport where we got really close together.

A. If I remember correctly, Mr. Gerrard's testimony stated that the reason for the Mona-to-Oquirrh project is because those lines are being co-located.

Q. Okay. Are you familiar with the type of delay that may come to this project if there's a challenge to that federal Environmental Impact Statement?

A. I am -- I'm familiar with it, yes.

Q. Are you familiar that oftentimes needful

litigation is not measured in days or months but in years?

A. Correct.

Q. Is that a concern to the Company that even if this Board, the relief that's been granted -- or that's been requested by the Company to grant this permit, is the Company at all concerned that even if Tooele County complied with an order of this Board issuing a permit for this route, that it still would not be constructible within your timeline?

A. The amount of work that's gone into the EIS and the feasibility study, five years, we are confident about our line. We have the EIS documenting the analysis. We are concerned about the delays in that.

However, any project, any line alignment, has the potential for that kind of dispute of an EIS. There is the potential there no matter what route you have.

Q. Is, is permitability and the cost associated with obtaining permits, is that part of the costs that are calculated in the standard cost of a, of a high-voltage transmission line?

A. We, we are obligated to keep track of all of our costs. All of our costs are obligated to be

accounted for.

Q. Okay. Are litigation costs a part of the costs that are factored in and considered for the cost of constructing a line?

A. There are risks identified early on in the project, such as litigation.

Q. So the costs associated with litigation, do those factor into the standard cost?

A. I guess you -- are you referring to the standard cost of building the line --

Q. For instance --

A. -- from a point to a point?

Q. For instance, the part of the line that's in controversy that you've applied for crosses Tooele City property. They -- this Board has received a letter from Tooele City indicating that it intends to contest the condemnation of that property. Is that a cost that's factored in to building this route?

A. It is a risk that's identified. There are certain dollars assoc -- accounted for in that risk. I can't tell you what those dollars are right now.

Q. This route, the controversial portion thereof, crosses a Superfund site. If there were legal challenges mounted to your plan to cross that Superfund site and litigation and ensued, are those

costs that would be built in to the standard cost of constructing this route?

A. Possibly. However, we do not have any reason to believe that there's gonna be any issues going across the Superfund site.

Q. And additionally, if -- on the whole, if the Federal Environmental Impact Statement were challenged, the associated litigation costs, would those play in to the standard cost of building the Southeast Bench route?

A. I guess I'm confused on what -- you're asking if those costs are accounted for?

Q. I'm asking if those costs are part of the price -- part of the reason we're before this Board today is, one, to decide routing. Is to decide where the route should be sited. And the second is to determine what, if any, excess costs are the local jurisdictions's responsibility.

And the reason I'm asking this question is, I think it's very important to Tooele County and to this Board to be able to differentiate between what is the true standard cost of the route that's been applied for.

From our filings you can see that the County's position is that that number is unknown. We

don't know what the standard cost is for this route, because there are at least three different possibilities of litigation that are going to happen with this route.

So that cost figure cannot be determined. That's the point I'm trying to make. And I'm trying to get you to answer the question about whether or not the litigation associated with the route you've applied for would become a part of the cost of building this route.

A. I'm not familiar how those costs are tied in to the project. Whether or not they are passed on to the ratepayers or not.

Q. Certainly, certainly you'd acknowledge that the time impact absolutely affects, from the Company's standpoint, whether or not this is a good route?

A. Time impact is considered.

MR. HOGAN: Okay.

I have no further questions for this witness, Mr. Chairman.

CHAIRMAN BOYER: Okay. Thank you, Mr. Hogan.

Let's see now if the Board members have questions. Mayor Johnson?

MAYOR JOHNSON: I just have a couple of questions, just for our own benefit. Coming from a

community of power lines, we have buried a few of our lines.

And we're dealing with a situation where we have a visual impact on, some said a handful, whatever a handful is. At least some citizens. At least a three-or-four-mile visual area. Have we given any consideration to burying those lines? And is it possible?

THE WITNESS: To my knowledge, we have not buried a line -- a double-circuit 345 line.

MAYOR JOHNSON: It's a big line, I know that.

THE WITNESS: It's a big line. There are, there are estimates we have put together. Other, other counties actually request those. This, this is something that's very expensive. On the magnitude of ten, ten times the dollar amount of what it is to normally build a line.

There are also risks associated with that that the lines do not dissipate the heat they need to to keep cool. Therefore, in a lot of instances on a line this size you have to implement some sort of a cooling system to keep these lines cool, which additionally adds on to the cost.

So we have not been asked to put together a cost estimate for undergrounding for this portion of

the line.

MAYOR JOHNSON: Okay, thank you. There's another -- when I, when I went out there and looked at the project one was to take it as you have all proposed, or the Power Company proposes, take it up over the top from where it currently is. The other is to go out to Grantsville and go around.

What's the estimated cost of doing what has been requested by Tooele County versus what the Power Company has asked? Do you have any idea what the cost difference would be? And if so, who's gonna pay it?

THE WITNESS: I, I can't answer the part on who's going to pay it.

MAYOR JOHNSON: Okay, I'll back that off.

THE WITNESS: That's beyond my --

MAYOR JOHNSON: Give me the estimated cost.

THE WITNESS: We've put esti -- high-level estimates together based on both alternatives. Having Limber up closer to I-80, and the other one over above the Wal-Mart Distribution Center.

The cost estimates up near the I-80 Corridor, the estimates we've obtained for the substation foundations alone was an additional 43 million, just based on the impacts that would have to go into the design of larger foundations.

And the cost estimate for moving Limber up near Wal-Mart adds additional line miles, which adds to the cost in the range of, I believe, 38 to 40 million dollars for that route.

MAYOR JOHNSON: Thank you.

Thank you, Chairman. I have no other questions.

COMMISSIONER ALLEN: Thank you.

MR. HOGAN: Mr. Chairman? If I may, just for purposes of not jumping back and forth, may I clarify with the witness one thing that he stated? I know I didn't do this with the previous witness. But I think it's important, based on Commissioner Johnson's comment -- Mayor Johnson's question about looking at the different locations for the substation?

The location that I was trying to get Mr. Smith to talk about, that the County actually did request be considered, there never were numbers prepared for that substation. They -- the numbers that were prepared were for behind Wal-Mart, which is further south than what we requested. And for out in the flat, which is further east than what we requested.

So I, I think there is a location, and the location was identified in the feasibility study early

on as a potential substation location, never has been analyzed.

MAYOR JOHNSON: Chairman, can I just make?

MR. HOGAN: And if I'm incorrect, Mr. Smith, would you please indicate that, indicate -- so that's my understanding. I want to make sure I understand your testimony correctly.

THE WITNESS: Two things. The substation site which you're referring to, which is the very northwest corner, was eliminated early on due to these concerns with having both lines up north.

MR. HOGAN: Okay.

THE WITNESS: We were never given an official location for Limber to base our analysis on. We were not given a map, a drawing, or anything to base that on. We were given, In this general location.

And at our voluntary expense we analyzed the Wal-Mart route as a comparison, because we realized the conditions for the substation up north were unsuitable. So those were the two estimates we put together.

MAYOR JOHNSON: Just one further question, then, if you don't mind then. Is Grantsville okay with moving the line towards their city versus the visual impact we have on the southeast?

I don't -- and I don't need to go there, I don't think. I just -- I think I'm just asking it rhetorically, if you wish. But I think -- I haven't heard that, but maybe you could answer that just for me personally.

MR. HOGAN: Mayor Johnson, I can attempt to answer the question. And then the Mayor of Grantsville is present in the audience.

MAYOR JOHNSON: I'll turn that to the Chairman if we want to do that. We'll have that tomorrow night, I'm sure.

MR. HOGAN: My understanding from speaking with Grantsville, of course their first preference is that it not be there at all. I think that's everyone's first preference, is that it not be there at all.

We'd all like to have power and have no impacts. But they understand and are realistic that that's simply not the case. Their preference would be that it is on the other side of the Stansbury Mountains, in the Skull Valley.

Given that that's not realistic in this situation, their preference is certainly that the substation locate north of town rather than south of town, because of the concerns that I mentioned earlier

today about other lines connecting from the north, from the west, anything that would come off of the current location of Limber Substation would be spidering that would go adjacent to their city, and they strongly object to that. Is that correct?

MAYOR OF GRANTSVILLE: That is correct.

CHAIRMAN BOYER: Okay, thank you.

Anything to add to that, Mr. Smith?

THE WITNESS: No, thank you.

CHAIRMAN BOYER: Are you aware of that objection of Grantsville?

THE WITNESS: That --

CHAIRMAN BOYER: As represented by Mr. Hogan?

THE WITNESS: That they want -- I have never heard anything official from Grantsville that said they wanted it up north.

CHAIRMAN BOYER: Okay, thank you.

Commissioner Allen?

COMMISSIONER ALLEN: Thank you Mr. Chairman.

Mr. Smith, when I look at the EIS, the one that was the final or the latest one issued just a few weeks ago, April 20th, and look at the map, specifically Appendix C, there are a number of segments that are identified.

And I think you jumped to one that certainly

is one of the reasons everyone is probably here and we're hearing this case. And that is referred to on several maps as Segment 190 and 190A, as the proposed line and the BLM-preferred sites run just southeast of Settlement Canyon Reservoir. Are you familiar with that?

THE WITNESS: Yes.

COMMISSIONER ALLEN: You stated that the Company had taken -- accepted a mitigation request and moved the line about a thousand feet south. Which, if I look at these maps, that would potentially align with the BLM-proposed route originally. The green line on some of their maps. Does that sound familiar?

THE WITNESS: It sounds familiar.

COMMISSIONER ALLEN: The Company, according to the map that I've got -- and I guess really the nature of my question is, is this map old, is it wrong, or did something change quite recently? Because they show that you are taking still -- your route would be on the north side of the ridge.

When you stand up on 14th East and just south of Skyline Drive, you look up in that basin across that area, there is a separate ridge there. And it looks like they are putting the line in their preferred area behind the second ridge, and that you

are going to be in front of it.

So did I hear you correctly; have you decided to move it back that thousand feet? Does that put it behind that extra ridge?

THE WITNESS: Our initial adjustment was near the Settlement Canyon Reservoir our initial line was going over the top of it. We had shifted that about 400 feet to the south and put it on the south boundary of the reservoir.

As you move east behind the foothills we shifted the line even more, up to a thousand feet further away from the homes that were down there on the bench. That's not as far as what the BLM is showing as far as the environmentally-preferred route.

We had discussions with the County on impacts and mitigation for moving that route. And brought to their attention that there are some other areas back there which may be impacted by moving the line as far as the BLM had suggested. So we haven't moved the line to the BLM's point as of yet.

COMMISSIONER ALLEN: You moved it. And was that recently that you made that mitigation step to agree to move it a thousand feet?

THE WITNESS: We moved it the thousand feet initially, before we actually submitted the

conditional use application. So that thousand foot adjustment is in the Conditional Use Permit.

COMMISSIONER ALLEN: Okay. That's helpful. Let's see. Question about the Superfund site. When I -- I'm assuming that it is most of the canyon that was formerly the International -- when you, when you live in Tooele County that canyon has about 17 names, so you'll have to forgive me.

But it was U.S. Steel at one time, and it was other -- it was another site. Is it the basin of the canyon where that is generally the Superfund site? Are you aware of what the definition of the outline of that area is?

THE WITNESS: Yeah, we're actually -- if I can go back. It's outlined on one of the maps that we had on there. It's hard to see, but it is actually this area right there. It's the darker-shaded area.

COMMISSIONER ALLEN: And I notice that there are some fences with warning signs. Is the, is the site generally identified and contained?

THE WITNESS: Yes.

COMMISSIONER ALLEN: Okay.

THE WITNESS: Yes.

COMMISSIONER ALLEN: It looks like you already have existing lines going cross that canyon?

THE WITNESS: Yes, we do.

COMMISSIONER ALLEN: And how far away from those lines will the new lines, the proposed lines be?

THE WITNESS: We're being as close as possible to those lines. Those are, those are lower-voltage lines, so we are gonna be roughly 60 feet from those lines.

COMMISSIONER ALLEN: And is there anything that prohibits you from crossing over the top of a Superfund site, that you're aware of?

THE WITNESS: No. We're, we're working with the property owner, the Division of Wildlife Resources, and the EPA to -- they actually prefer our alignment to follow our existing lines. And we are in the process of developing the access road plan to go through that area.

COMMISSIONER ALLEN: So you're working on it. Okay, those are my questions. Thank you.

CHAIRMAN BOYER: Ms. Hurtado?

MS. HURTADO: I don't have any questions.

CHAIRMAN BOYER: Okay. I have just a question or two.

Just so that I'm clear, does the BLM-preferred environmental route transit across in front of the "T" (inaudible) behind the foliage?

THE REPORTER: I'm sorry, I can't hear you.
CHAIRMAN BOYER: I'm ask -- my question was, does the BLM-preferred -- environmentally-preferred route traverse in front of the "T" and in that same foliage that you've suggested?
THE WITNESS: Yes. It follows --
CHAIRMAN BOYER: Follows it?
THE WITNESS: The environmentally preferred is the same as our Company preferred.
CHAIRMAN BOYER: At that point with the "T"?
THE WITNESS: (Moves head up and down.)
CHAIRMAN BOYER: Okay. You talked about the costs -- or it was either you or your colleague talked about the costs of acquiring rights-of-way across the Kenne -- or paying reparations or whatever across the Kennecott property. Have you quantified that number?
THE WITNESS: No, I have not.
CHAIRMAN BOYER: Is it, is it in that same $40-million range that the Grantsville route would cost?
THE WITNESS: I, I honestly don't know. But I have not figured out what it would be.
CHAIRMAN BOYER: Let me follow up with a question that Mayor Johnson asked on undergrounding. For context, how -- what does it cost to run a mile of

overhead 500-kV transmission line? A million bucks a mile, 10 million a mile, 20 million a mile? What is that?

THE WITNESS: I, I believe Mr. Gerrard rattled off a number. It depends on, it depends on where you run the line. I mean, it can be anywhere from 2 million a mile up to, up to 5 million a mile possibly.

CHAIRMAN BOYER: Okay. So if we were talking about undergrounding -- I'm assuming that it's technically feasible. The cooling issue is technically res -- capable of being resolved. So a three-mile run would cost between $6 million and $15 million, then, based on your rough numbers there?

THE WITNESS: Approximately.

CHAIRMAN BOYER: That would be considerably less than the costs of just the foundations alone on the Grantsville route, isn't it?

THE WITNESS: Correct.

CHAIRMAN BOYER: Was there any discussion of moving the Limber Substation further to the south?

THE WITNESS: South of where it's proposed right now?

CHAIRMAN BOYER: South of where it's proposed now and coming in, you know, up into the drainage, for

example. Farther south.

THE WITNESS: No. Discussions were, were taking place about that, but the location right now really maximizes the efficiency of both going to Oquirrh and to, and to Terminal.

CHAIRMAN BOYER: So if you went further south you would lose some of the efficiency by -- because of the additional length?

THE WITNESS: Right. You have additional length, and we would have to take another route to get over to our -- over to Highway 36, possibly.

CHAIRMAN BOYER: Again, I think you testified that you have no, no idea of what litigation costs of a condemnation dispute with Tooele City would be. Isn't that what you testified?

THE WITNESS: Correct. I don't have those numbers.

CHAIRMAN BOYER: Okay, that's all I have.

Redirect?

MR. MOSCON: Thank you.

REDIRECT EXAMINATION

BY MR. MOSCON:

Q. Brandon, I'd like to steal that clicker from you if I could. You've got a pointer.

I'm gonna try and generally follow, Brandon,

the course that the Tooele County Attorney's cross examination followed.

THE REPORTER: Sir, I don't think your microphone is on.

MR. MOSCON: How about that? Should I scoot closer?

THE REPORTER: Better.

MR. MOSCON: Are we okay? All right. Sorry about that.

Q. (By Mr. Moscon) Brandon, do you recall the line of questioning that you were asked about the fact that you testified that in this Area 1 at the bottom -- if I can get my pointer to work -- that after the Company explained to the BLM why line separation was so important to the Company, that the BLM actually backed off its proposed -- or its preferred route and adopted the Company's route. Do you remember that line of questioning?

A. Yes, I do.

Q. He basically asked you, he said, Gee, if they -- if there had been a county seat there, and if there's a huge population center there, and if it was all the citizens were in an uproar there, would they have still, you know, done what you wanted them to do? And of course your answer was, I don't know. Do you

recall that questioning?

A. Uh-huh.

Q. My question for you is, here in this disputed route, where you are in the county seat, and where you do have the population, and you are on the bench, and the citizens did write all their concerns to the BLM, did the BLM still accept that route as its preferred route as well?

A. Yes, they did.

Q. He then asked you to go to the slide showing the Silcox Canyon route, and asked you to compare this route to the Grantsville route as far as which route is better for firefighting, et cetera. If you recall? I take it it's fair to say neither this route nor the Grantsville route is the preferred route, right?

A. Correct.

Q. My question though is, does the firefighting issue really drive that? Is that really the driving issue for the Company?

A. No, it's not the driving issue.

Q. There was a lot of discussion about the photographs and whether they're believable or not believable. Again, I guess without the editorial -- the editorializing, what information did the BLM ask the Company to provide so that it, the BLM, could do a

simulation?

A. They asked for the structure designs that I'm highlighting right here, and access road plans for that area.

Q. And do you know, were there photographs like this in the Draft EIS?

A. There were, there were visual simulations in there. This, this is an altered one showing the adjustment of our line further to the south.

Q. Right. Okay, but in the Draft EIS there were also some visual simulations?

A. Correct.

Q. And are you aware of whether anyone came forward to the BLM and said, Hey, there's a mistake, you guys have got it wrong, your engineering data is incorrect, you need to alter this, that's not what it will really look like?

A. No, I've had no comment about from -- that.

Q. So while there might be an attempt to insinuate that's the case, no one ever actually was able to call the BLM on it and say there's a problem there, I take it?

A. Not to my knowledge.

Q. You then were asked a series of questions about NEPA litigation, costs, delay to the project.

Let me go to -- well, we can use this slide here. This is what has been called the Grantsville route Option 2. Whether it's Option 1 or 2 doesn't matter, but. Here's the Grantsville City limits. There's one possible location for a substation.

I know you're not a lawyer, Brandon, but are you aware of anything that would stop someone that lives over here in Grantsville from filing NEPA lawsuits or challenging the EIS if this route were taken and they wanted to make that challenge? Are you aware of anything that would prevent that?

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

Q. And in other words, whatever risk there is of terrible lawsuits and people being upset and trying to challenge the process, doesn't that risk exist no matter where this route is ultimately selected to go?

A. Yes, that risk is there.

Q. And although there was a very-thinly-veiled threat of your company will experience a lot of cost and delay if you go forward with your route, does the Company engineer around threatened litigation or claims that we're gonna hold you up, or does it engineer around the environment and the electrical needs of its customers?

A. We engineer around the environment and our --

what's best for our customers.

Q. Okay. There were some questions about undergrounding the line. Are you aware, Brandon, of whether the final EIS addresses underground transmission of the lines in case that is a concern of the Board?

A. I believe it does not.

MR. MOSCON: No further questions. Thank you.

CHAIRMAN BOYER: We're gonna take our option of playing through, and Commissioner Campbell has one more question for Mr. Smith.

COMMISSIONER CAMPBELL: Could you turn to the visual impact, the second-to-the-last visual impact slide? Yeah, that one.

I think Commissioner Allen's question was is that the BLM would take you behind that ridge? Have you considered that? Do you see, you see the -- you have the ridge that you have your two towers on. If you go over to the left, do you see that ridge right there?

THE WITNESS: Uh-huh.

COMMISSIONER CAMPBELL: Is there a way to go behind that and then come up through that?

THE WITNESS: Yeah, this -- sorry. This is

the location I believe the BLM or the environmentally-preferred route in the FEIS would come out. As it was discussed, they are over to the south one more ridge. I believe there's a scout camp over there and some other issues.

So we, we have looked at it as far as that, and it's just moving it back one more ridge. It, it has impact on, it has impact on other property owners than what it's impacting right now. And moves it a little higher up into the watershed area.

CHAIRMAN BOYER: Thank you, Mr. Smith.

Anything further, Mr. Moscon?

MR. MOSCON: Actually, yes. Thank you. There are a couple of things. And by the way, as a side note -- I don't mean to convey testimony -- but I will offer to the Board that the visual simulations were only a couple of examples.

The Final Environmental Impact Statement has a series of them. And the question that Commissioner Campbell is asking about, there are actual photographs that you can look to to answer those questions that we don't have slides for.

FURTHER REDIRECT EXAMINATION

BY MR. MOSCON:

Q. Here, let's look at a slide. One last thing,

Brandon, I neglected to ask you about. There is -- this is the question about the Limber Substation and is it better here, here, here, here, here.

First, does the location of the lines drive where the substation goes, or does the substation drive where the lines go? If that question makes sense?

A. Line -- the lines in this situation drive where the substation goes.

Q. Okay. In your direct testimony -- I just want to make sure I was correct. Did you look at all -- geological data for the soils in all of this area, rather than just that one location?

A. Yes. We used desktop information, which is the readily-available information that's already been compiled and collected for these areas. For this whole area right here. These are all generally the same. The same type of soils. They're lake-bottom soils.

MR. MOSCON: Okay, thank you.

CHAIRMAN BOYER: Okay. Thank you, Mr. Smith. You may be excused.

THE WITNESS: Thank you.

CHAIRMAN BOYER: Mr. Hogan, you have no witnesses as I understand it?

MR. HOGAN: That's correct.

CHAIRMAN BOYER: So the plan will be to recess now. Reconvene tomorrow at 4:00 in Tooele County, as that's going to be the location. And then we'll reconvene here again Wednesday morning at 9:00. At which time we'll hear rebuttal testimony, if any, and legal arguments, closing arguments. Is that correct and acceptable to everyone?

MR. HOGAN: Yes.

CHAIRMAN BOYER: Very well. Thank you all for your participation. And those who have come to observe, thank you as well. We will look forward to seeing you tomorrow evening. Thank you all.

(The hearing was recessed at 3:38 p.m.)

C E R T I F I C A T E

STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

This is to certify that the foregoing proceedings were taken before me, KELLY L. WILBURN, a Certified Shorthand Reporter and Registered Professional Reporter in and for the State of Utah.

That the proceedings were reported by me in stenotype and thereafter caused by me to be transcribed into typewriting. And that a full, true, and correct transcription of said proceedings so taken and transcribed is set forth in the foregoing pages, numbered 1 through 206, inclusive.

I further certify that I am not of kin or otherwise associated with any of the parties to said cause of action, and that I am not interested in the event thereof.

SIGNED ON THIS 17th DAY OF May, 2010.

_____
Kelly L. Wilburn, CSR, RPR
Utah CSR No. 109582-7801

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