BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF HUALAPAI VALLEY SOLAR LLC, IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES §§ 40-360.03 AND 40-360.06, FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF THE HVS PROJECT, A 340 MW PARABOLIC TROUGH CONCENTRATING SOLAR THERMAL GENERATING FACILITY AND AN ASSOCIATED GEN-TIE LINE INTERCONNECTING THE GENERATING FACILITY TO THE EXISTING MEAD-PHOENIX 500kV TRANSMISSION LINE, THE MEAD-LIBERTY 345kV TRANSMISSION LINE OR THE MOENKOPI-EL DORADO 500kV TRANSMISSION LINE.	DOCKET NO. L00000NN-09-0541-00151 CASE NO. 151 **EVIDENTIARY HEARING/ PUBLIC COMMENT**

At: Kingman, Arizona

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By: MICHELE E. BALMER
Certified Reporter
Certificate No. 50489

Prepared for:

LINE SITING COMMITTEE

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BE IT REMEMBERED that the above-entitled and numbered matter came on to be heard before the Arizona Power Plant and Transmission Line Siting Committee, at the Hampton Inn and Suites, 1791 Sycamore Avenue, Kingman, Arizona, commencing at 9:30 a.m. on the 12th of January, 2010.

BEFORE: JOHN FOREMAN, Chairman
DAVID L. EBERHART, Arizona Corporation Commission
PAUL W. RASMUSSEN, Department of Environmental Quality
JESSICA YOULE, Department of Commerce
GREGG HOUTZ, Arizona Department of Water Resources
PATRICIA NOLAND, Appointed Member
JEFF McGUIRE, Appointed Member
MIKE WHALEN, Appointed Member
BILL MUNDELL, Appointed Member
MIKE PALMER, Appointed Member
BARRY WONG, Appointed Member

APPEARANCES:

For the Applicant:

LEWIS AND ROCA, L.L.P.
By Messrs. Thomas H. Campbell and Albert H. Acken
40 North Central Avenue
Phoenix, Arizona 85004

MICHELE E. BALMER
Certified Reporter
Certificate No. 50489

CHMN. FOREMAN: Good morning, ladies and gentlemen. My name is John Foreman. I'm the Chairman of the Arizona Power Plant and Transmission Line Siting Committee. This is a meeting of that Committee. It's a meeting to consider the application of the Hualapai solar project. Our cause number is 151.

We have a lot of housekeeping things to do this morning, and the first one that we're going to deal with is I hope those of you who have cell phones on, either turn them off or turn them to mute.

There have been a couple of people who have asked about recording. Recording is inappropriate. We have a court reporter here who is taking down everything that is said. The transcript that will be generated will be placed in two local libraries, one in the Kingman library, and I think the other one will be in a local junior college library, so there will be copies available.

If there's somebody here who feels that they want to record it, then you're going to have to make a transcript of that recording and submit that transcript to Docket Control with, unfortunately, 25 copies at the Arizona Corporation Commission. And we do that for an obvious reason.

Yeah. Apparently -- let me remind you, if you have a phone, please turn it off, or please turn it to

mute. Again, we have a lot of ground to cover today.

We do that because we're making a record here. Not only does this Committee make a decision about the application that's been made, the Committee also prepares a record that later can be used by the Arizona Corporation Commission, and it's important that that record be consistent and there be one record. We don't want to have to get into concerns about whether there is an inconsistency in the record or whether there are -- any recording has been altered. And so in order to avoid those types of issues, we ask you not to record these unless you're willing to accept at the beginning that you're going to record them all and provide transcripts to the Commission.

Now, let's start by seeing whether the Applicant is ready to proceed.

MR. CAMPBELL: Mr. Chairman, the Applicant is ready.

CHMN. FOREMAN: All right. And appearing here with you today?

MR. CAMPBELL: Yes, Mr. Chairman. Tom Campbell and Bert Acken of the Lewis and Roca law firm on behalf of the Applicant, Hualapai Valley Solar. And at counsel table with me is Mr. Greg Bartlett, who is the project director for this project.

CHMN. FOREMAN: All right. Now, we had three parties that inquired about intervening in this matter. The first was Israel Torres on behalf of the -- I think it's the Arizona Building Trades unions who are in Arizona and in this area. The second was Susan Bayer. The third was Denise Bensusan.

After speaking to all three, Mr. Torres indicated that he was willing to accept an offer by the Chair to present some testimony concerning the areas of interest of the building trades unions, and that testimony will come after the Applicant's case is complete.

Ms. Bensusan and Ms. Bayer wanted to intervene fully as parties, and so the first issue of business for the Committee is to rule upon those motions. I have spoken to Ms. Bayer and Ms. Bensusan at the prehearing conference. And I wanted to ask each of them to just briefly summarize why it is they wanted to be parties.

And then something that came to me after reviewing the written documentation, it appears that you both have pretty much the same position on items, and I'm wondering if you two disagree on anything with regard to the application. In other words, is this really two separate parties wanting to intervene, or is it just one party wanting two bites?

So Ms. Bayer, let me start with you and ask you

to briefly summarize why it is that you would like to be a party and to what extent your interest or the interests that you would be representing in this hearing are different from Ms. Bensusan's.

MS. BAYER: Yes, sir. Thank you very much, Mr. Chairman, and good morning to everyone here. My name is Susan Bayer. My interest in this is several categories with this company. I believe that there is a credibility issue that can be raised with them. The infrastructure has never been really answered or addressed by this company to the citizens of Mohave County; there is other serious issues regarding wildlife; and, lastly, the water issue. And I wish to address all of that on behalf of the citizens.

CHMN. FOREMAN: Now, as I understand it, you have never been a party in an administrative proceeding or a court proceeding before; is that true?

MS. BAYER: Yes, sir, that is correct. I do hold a certificate as a paralegal.

CHMN. FOREMAN: All right. And you have complied with the pretrial or prehearing orders that I have submitted?

MS. BAYER: Yes, sir.

CHMN. FOREMAN: And we'll talk about those a little bit later on.

All right. Ms. Bensusan, question to you. What interests do you represent and to what extent are the interests that you represent different from those of Ms. Bayer?

MS. BENSUSAN: Excuse me. Well, this is our neighborhood. This is our backyard, several of us here. Actually, a lot of us. And we have deep concerns over the wet cool portion of the application because of personal wells. That is our water use. And basically it's our neighborhood, and we're concerned about several different things, you know, flooding issues, water. We're just here to express and bring some evidence that we feel is important to this -- to the staff.

CHMN. FOREMAN: All right. And again, it's my understanding that you have never been a party to an administrative proceeding or a court proceeding before; is that true?

MS. BENSUSAN: I have assisted Jack Ehrhardt.

CHMN. FOREMAN: Who is Jack Erhardt?

MS. BENSUSAN: Jack Ehrhardt is the economic planner for the Hualapai Tribe. And he's intervened in several issues over the years, and I have assisted in two of those.

CHMN. FOREMAN: All right. Are there any questions that Committee members would like to ask?

Member Houtz.

MEMBER HOUTZ: Two things I would like to know from both of the proposed intervenors is the number of witnesses they intend to bring forward and kind of what they are going to testify about just real briefly. And secondly, did they participate in the county process for the zoning change for this proposed plant.

CHMN. FOREMAN: Ms. Bayer.

MS. BAYER: Thank you, sir. Sir, I did participate quite heavily with the county planning and zoning, along with going to the public meetings that Hualapai Valley Solar did hold, and also participated in the board of supervisors. As to my witnesses, I have based it all on factual evidence that I have prepared and I'm ready to place before you.

CHMN. FOREMAN: And by that you mean documentary evidence?

MS. BAYER: Yes, sir. I have complete documentation.

CHMN. FOREMAN: And do you intend to testify yourself?

MS. BAYER: Only if asked questions.

CHMN. FOREMAN: Well, let me --

MS. BAYER: Mine is strictly just based on the evidence that I will be presenting only. No witnesses.

CHMN. FOREMAN: In order to present documentary evidence, you're going to have to have a witness establish some foundation for that documentary evidence.

MS. BAYER: Then I will be testifying.

CHMN. FOREMAN: Okay. And you understand that you're going to be subject to cross-examination?

MS. BAYER: Yes, sir, I am.

CHMN. FOREMAN: All right.

MS. BENSUSAN: Yes, I did participate in the county zoning changes extensively. As witnesses, we've actually cut down that list. I spoke with Judge Foreman this morning about that. I'm more than willing to actually testify. I do have some firsthand knowledge of our water issues. I'm the chairman of the Northwest Arizona Watershed Council. And yes, and we do have some local witnesses we would like to call, the neighbors, neighborhood issues.

CHMN. FOREMAN: But how many?

MS. BENSUSAN: Three.

MEMBER HOUTZ: Mr. Chairman, I only ask these because they did participate in the county process. I don't want to second guess the decisions of the county board of supervisors and have a dissenting presentation. I think we have to take elected officials at their face, but I'll consider this when other questions are asked.

CHMN. FOREMAN: Okay. Any other questions from Committee members?

(No response.)

CHMN. FOREMAN: All right. With regard -- we'll take folks in order. With regard to Ms. Bayer, is there a motion to allow her to participate as a party?

MEMBER WONG: So moved.

CHMN. FOREMAN: Motion by Member Wong.

Is there a second?

(No response.)

CHMN. FOREMAN: There is no second. The motion dies.

With regard to Ms. Bensusan, is there a motion?

MEMBER WONG: So moved to allow her to be a party.

CHMN. FOREMAN: Is there a second?

(No response.)

CHMN. FOREMAN: No second. The motion dies.

So with regard to participation, you ladies are not going to be able to -- you're not going to be allowed to participate as parties. Let me reextend the offer that I extended to you at the prehearing conference, and that is, if you would like to testify yourselves at a later time, I will allow you to do that. And you don't have to give me your answer to that right now. But after the

Applicant's case, if you wish to testify, as I said, I'll allow you that opportunity.

Does the Applicant have a position to express with regard to either of the motions to appear as parties or with regard to the Chair's offer to allow these folks to testify as witnesses later?

MR. CAMPBELL: Your Honor, we don't have any objection to the Committee calling Mr. Torres' client or Ms. Bensusan or Ms. Bayer so they can lay out their position for you.

CHMN. FOREMAN: All right. Very good. And I have no problem with you folks staying where you're sitting during the proceeding.

Ms. Bensusan.

MS. BENSUSAN: May I make a comment? Am I allowed to?

CHMN. FOREMAN: Yes, you can make a comment, yes.

MS. BENSUSAN: Okay. I certainly appreciate Mr. Wong's courtesy to both of us. And I feel that eliminating both of us from this process is just -- it's defeating the entire meaning of this process. I mean, we're at the second step. We have grave concerns. We've submitted extensive amount of evidence and information. This community has a lot to say about what is happening in their neighborhood.

CHMN. FOREMAN: Ms. Bensusan, if I could stop you there. You have not been eliminated from this process. You have already participated in the process documentarily, and I have given you the option and you have accepted the opportunity to testify yourself.

The Committee has to make its decision based upon evidence, material that is in evidence. What you have submitted is material that you would like to have accepted into evidence. It hasn't gone over that threshold yet. There is a formal process by which that occurs, and my job is to make sure that that formal process is followed.

I'm trying to extend to you the opportunity to put evidence into this proceeding and to make whatever comment you would like to make, along with everyone else. All of that will go into the record. But the Committee has to make its decision based on evidence that's in the record. So again, you will have an opportunity to do that. What you are not going to have is the obligation to do a lot of the other things that parties have an obligation to do.

The Committee has had significant recent experience with folks who have tried to do what you wanted to do in this case. Some of them have done it reasonably well. Some of them have done it, frankly, not well at all, and have ended up hurting themselves.

And so I would not take this as any sort of a sentiment from the Committee about what it is you have to say or what *might* be done with what it is you put into the record. It's simply a desire on the Committee's part to see that what is presented is presented in a way that the Committee can make use of it as best it can. So --

MS. BENSUSAN: Are you saying that we're not intervenors, but we're going to still be able to act as intervenors?

MS. BAYER: No, we are not.

CHMN. FOREMAN: No, no, no. We'll talk about this at the break. But you are going to be able to present evidence. So what you said about the Committee dying and the opportunity to present evidence is not true. You will have that opportunity.

What you're not going to do is have the opportunity to make arguments and to cross-examine other witnesses. So you're going to have the opportunity to put into evidence what you said you wanted to put into evidence. And whether it gets into evidence or not, we'll see. But that is -- you're going to have the same opportunity you would have if you had been a party.

MEMBER WONG: Mr. Chairman, if I may.

CHMN. FOREMAN: Member Wong.

MEMBER WONG: Maybe it would be helpful if we

explained to the citizens here in Kingman at what juncture are they permitted to -- juncture in the proceedings could they speak and present their information or evidence. I think that would be helpful to know right -- for you to know when -- at what juncture you can speak and present. Would that be helpful?

MS. BENSUSAN: Actually, the only thing is, to make a very quick comment, we believe -- we went through processes with the board of supervisors, et cetera, where we were not allowed to ask questions. You know, you have a two-minute comment, you don't get to ask questions of the parties that are giving information.

We feel it's very important for us to ask -- be able to ask questions of the testimony that's being given here today as citizens, and I think we've done a very good job of making it as smooth as possible by including us. Because we just feel the citizens really don't get to ask those questions, cross-examine some of the testimony, and that's been the issue from the beginning. Hopes had been, of course, at this point, as intervenors, we would be allowed to cross-examine and get some questions answered thoroughly from the viewpoint of the citizens and a neighbor of the project.

MEMBER WONG: Mr. Chairman, if I may, since my motion failed for lack of a second, therefore, failing to

pass the motion, essentially, basically denied your opportunity to become intervenors and the opportunity to cross-examine witnesses of the Applicant and others. Mr. Chairman, is that correct?

CHMN. FOREMAN: Yes. Although I had planned to allow them to present their testimony after the Applicant, and so they're going to have an opportunity to respond to everything that the Applicant puts on in their case in chief.

MEMBER HOUTZ: Mr. Chairman, would it be fair to say if they raise questions during their testimony, Committee members have had a history of listening to those questions and maybe re-asking them in a different form?

CHMN. FOREMAN: Sure, and that's something that happens. And the Applicant will have the opportunity and probably want to take advantage of the opportunity to present rebuttal, and the witnesses will be here. So I'm not seeing that any of the subject matters that might be of concern to the Committee members will be neglected, because they'll have the opportunity to raise them, and we'll have the opportunity to pursue them if we wish.

What is not going to happen is they're not going to be asking the questions themselves.

MEMBER WONG: So just to continue with that, at the right opportunity, when you have the opportunity to

speak and present to this Committee, you can present your information and evidence, written and verbal, and you can raise the issues to us, and then we have the option to then ask those questions or some form of them at our discretion to the parties, even though you don't have a right formally to cross-examine other witnesses. Is that clear?

MS. BENSUSAN: Yes. Thank you for that very thorough explanation. I appreciate it.

MEMBER WONG: Mr. Chairman, with all due respect to Mr. Houtz's comment earlier, I don't have a problem with additional evidence that may or may not have been presented to other levels of government, at the local government, county or municipal. And it's not because -- I don't think it's an affront or disrespectful to the other levels of government, it's just that we are a different level of government and we should have the opportunity to hear all evidence that you have to share with us.

CHMN. FOREMAN: One of the joys of this Committee is that you each are extraordinarily independent folks and you each have the opportunity to weigh the evidence as you see fit.

MEMBER WONG: Thank you.

CHMN. FOREMAN: All right. Now, we have a number

of people who have indicated an interest in making public comment. There is a public comment session that will be nothing but public comment that's scheduled for 6:00 p.m. this evening. There are, however, some folks who have indicated that they would like to talk earlier in the day. And we have a couple of elected officials here, and I would like to allow them the opportunity to speak sooner rather than later if they so desire.

It's my custom to allow public comment after the openings so that everybody knows what the project is and what it is about the project that is going to be considered by the Committee, and that's how I would intend to proceed this morning. Unless there's someone who has indicated an interest in speaking who has to leave right now, I would like to postpone for approximately how long?

MR. CAMPBELL: Mr. Chairman, 20 minutes probably is what my opening statement will be.

CHMN. FOREMAN: -- approximately 20 minutes the public comment, and then we'll have a round of public comments for those of you who want to speak now rather than this evening.

The only thing that I'm going to indicate is that for those of you who want to speak now, we're going to need to limit the amount of time that you speak to three minutes. All right. And if you want to come tonight, I'm

not going to promise you an unlimited amount of time, but it will be more than three minutes.

All right. So let's proceed, then, to openings. Counsel, you may proceed.

MR. CAMPBELL: Thank you, Mr. Chairman. Good morning members of the Committee. We are here on behalf of the Applicant, Hualapai Valley Solar, which is requesting that you grant it a Certificate of Environmental Compatibility for a 340-megawatt solar facility north of where we are sitting now by about 27 miles.

It is the first such facility that this Committee has dealt with in Mohave County, and it provides an opportunity for Mohave County to participate in what I think many people believe is an important part of the future economic development and growth in Arizona, which is the development of solar and renewable industry, and this would be the first Mohave County project that you have had a chance to look at.

Let me give you a little background on the project and talk about our witnesses, and that will constitute my opening statement. And I would like you either to look at your placemat, which has a map that shows some of the project and support, or you can look at the screen on the wall. But your placemat, and the side

that I'm looking at corresponds with the side that's on the screen, has been marked for identification as HVS Exhibit No. 3. And the site is outlined in blue. As I said before, it's about 27 miles north of where we're sitting right now. And it contains some transmission corridors, which I'll talk about in a moment.

A couple of quick observations about the site and the evidence that you're going to hear about the site. It's obviously a spot where there is good sun, where there's good reception for the sun.

It is right by some major transmission corridors, and let me outline those for you. These two lines right here, the red line is the Mead-Phoenix 500kV line. The one next to it in green is the Mead-Perkins, I believe that's called, a 345kV line that is a WAPA line. The red line is owned by a variety of utility participants. And I'm not sure how well it shows on this screen, but right here is the Moenkopi-El Dorado 500kV transmission line that goes roughly from the Four Corners area across to southern Nevada to the El Dorado substation, which is a major marketplace. So one of the reasons this site is so attractive for a solar facility is its proximity to three major transmission lines.

And this highlighted area here is a BLM transmission corridor.

It's a very flat area. It's a very remote area. As you will hear from the testimony, there are no significant biological or cultural problems with the area. There are not one, but two sources of water for this project that you will hear a lot about today. There is groundwater in sufficient supply for the project.

In addition to that, this Applicant has been working with Kingman to purchase effluent from a to-be-expanded wastewater treatment facility in the Kingman area and to pipe that effluent up to use in this plant. Very similarly, I know many of you probably are aware that effluent is used in some of the plants in the Palo Verde area for cooling. So we'll talk about both of those, but obviously there's an adequate source of water from two different sources for this project.

There's ready access to the project both from Stockton Hill Road and from another road that you see right here for purposes of building the project.

I would like to highlight something that's somewhat unusual that we're asking for in this CEC. We're asking for the Committee to approve two different transmission corridors, a corridor that's in the black, and it's black-hatched right here, that is about a three-mile corridor that will interconnect to either the Mead-Phoenix or the Mead-Perkins line at this point about

three miles from the project, or a somewhat longer corridor, about a six-mile corridor, roughly, that would interconnect at the point where Mead-Phoenix and Mead-Perkins intersect with the Moenkopi-El Dorado line.

The Applicant is working with WAPA, Western Area Power Administration, for purposes of interconnection at this point. We believe that the most likely scenario is an interconnection with the Mead-Phoenix 500kV line at a new WAPA substation that will be built right here. That Mead-Phoenix line has available transmission capacity running both into the Phoenix area and up into the Las Vegas marketplace area.

However, in conversations with WAPA, it's clear that they still want to at least think about perhaps using the Mead-Perkins line because there's some federal money that may allow for upgrades of that line and they may -- that may be a good interconnection, or an interconnection at a more northern point where these three lines intersect. So we're asking you to actually approve two corridors; we're only going to use one.

The environmental analysis we've done covers both corridors, and I just note that because it's a somewhat unique feature of this particular CEC that we haven't dealt with that often at the Siting Committee. So to highlight that now, and the witnesses will obviously talk

about it and answer your questions about it.

CHMN. FOREMAN: Mr. Campbell, if I could stop you there and just ask you to have your witnesses talk to us about this as they make their presentations.

As I understood from reading the application, you want permission to construct either one 340-megawatt CSP generator, or two 170-megawatt CSP generators. I would like to know when that decision would be made and what factors will be taken into consideration.

And then on the -- or you want -- you give us notice that you might put in a 500-megawatt DC photovoltaic, and there you talk about either using the crystalline silicon or thin film, and a single-axis tracker or a fixed tilt. And then on the gen-tie you have talked about using either the three-mile, which would be either Mead-Phoenix or Mead-Liberty, or the 6.5 mile, which would be either Mead-Phoenix, Mead-Liberty, or the Moenkopi.

So I'm not sure mathematically how many permutations there are that are involved in the application, but as you go through your presentation from your witnesses, I would like to know when those decision points are, what factors will be taken in making those decisions, and to what extent the decisions ought -- there ought to be some indication in the CEC that we ultimately

give, that we ultimately may grant in this case, that would indicate when you have to make a declaration about which direction you're ultimately going to go so that the Corporation Commission has notice of what it is that you're ultimately going to do.

MR. CAMPBELL: Thank you, Mr. Chairman. We will have our witnesses -- that will probably be our first panel that I'll speak about, Mr. Bartlett and Mr. LaRow. Some of that has been put into prefiled testimony, but you have a few questions that have not, and we will address those specifically.

As you have heard in prior projects, the phasing of CSP projects and the PV versus CSP decision is often driven by the ultimate utility or utilities that purchase the power, and they will be prepared to talk about that and answer your questions. So I have noted those questions, and it will be the first panel that would be the appropriate panel to address those questions.

And speaking about the first panel, let me just briefly summarize our witnesses and how we're planning to present them. We're going to present five witnesses in three panels. The first panel will be Mr. Greg Bartlett, who is a project director and principal, and with him on that panel will be Mr. Mike LaRow, who is also a principal in the application, focusing more on environmental and

some technical engineering areas.

Mr. Bartlett's testimony -- and I believe all of you received their prefiled testimony, so what we're going to be doing is presenting summaries of that testimony. He will talk about the experience of the principals who make up the Applicant. He'll talk about the supplier relationships we have for purposes of building this project, and he will explain why this particular site was selected.

He will also be our witness -- Mr. Bartlett will be our witness to put the evidence in the record with respect to need. And his testimony in this area, as you may have noted, falls into three areas. First of all, it's needed to meet renewable portfolio standards heavily in the southwest, in Arizona, in Nevada, California, some of which may actually be increased. There may also be national renewable portfolio standards. So that will be the first basis for the need case.

The second aspect of need that we'll talk about is simply growth in the southwest. In fact, he uses some information provided in a recent presentation by Chairman Mayes of the Arizona Corporation Commission as an illustration about Arizona's growth, not only future population growth, but the fact that the growth in the use of electricity per person is greater. And while we're in

an economic downturn right now, the long-term future for growth will be restored.

And thirdly, he will talk about, as a basis for the need for this project, the uncertainty with which we view conventional resources, particularly coal. As many of you know, a part of the base load, a significant part of the base load for Arizona and other southwestern states are coal facilities. There is carbon tax legislation in Congress being considered.

You probably recently heard -- and we'll talk about this -- the Environmental Protection Agency taking a look at the existing coal plants in northern Arizona. Perhaps one of the possibilities is that upgrades will be required of those plants, as they were in Mohave, which will change the economics of those plants and could even lead to closure. So at least there is uncertainty as to the availability of conventional resources, and he'll talk about all three of those points.

In addition to helping Arizona meet its renewable portfolio standards and energy needs, as well as the other states in the southwest, he'll specifically have some testimony on Arizona benefits of this project, both in terms of employment, in terms of taxes, in terms of the indirect economic benefits that come from developing a project of this magnitude, particularly in an area, a

depressed area, a currently depressed area such as Mohave County.

Finally, Mr. Bartlett will briefly touch upon the public reaction to the project, what people have said. And he will overlap a little bit in that extent with Ms. Pollio who will talk in more detail about it.

On the first panel will also be Mr. LaRow, who is a principal of the party. He will describe the technology that goes into this particular project. He will also be presenting what we normally refer to as a virtual tour. We have a creation, a film creation that has been done by our engineers which will show you the project, the major components of the project, and give you some sense for the environment, the area in which the project exists.

And finally, Mr. LaRow is going to address the topic of dry cooling, which was a topic at our county process and has been the subject of much discussion. And so Mr. LaRow will present evidence on that, probably as much evidence on dry cooling as you have heard.

Once that panel is finished, we'll call our second panel. Our second panel is a one-witness panel, Mr. Bill Victor. Mr. Victor is a hydrogeologist. He has presented already in the record an extensive hydrological report. A supplement to that report has been put in your book, in your exhibit book as well, and I think a third

letter that we sent to the county as a part of looking at water issues in the book. I think --

CHMN. FOREMAN: Excuse me, Mr. Campbell. The supplement is Exhibit 24 that was passed out this morning; is that correct?

MR. CAMPBELL: No. That's the letter to the county is Exhibit 24. That was passed out this morning. Mr. Victor wrote a letter to the county as part of the county process to address water issues. It's kind of a good four-page summary. The supplement that I was referring to is Exhibit No. 22.

CHMN. FOREMAN: Okay, thank you.

MR. CAMPBELL: And then the original report is actually in the application.

CHMN. FOREMAN: Yes.

MR. CAMPBELL: I think, based on my experience, this is probably the most extensive water hydrological study record that the Siting Committee has seen. He is a very experienced hydrogeologist, particularly in this area, having worked in this area on numerous occasions.

We asked him, even though we are dealing with the City of Kingman on effluent, we asked him to assume that we use all groundwater for this project and to assume we use 3,000 acre-feet, even though I thought -- we believe if we use all groundwater it would be less than that,

something closer to 2,400. We asked him to make those two assumptions and evaluate the aquifer impact based on that.

His conclusion, as you will hear, is that after 30 years of operation, the wells in this area are not substantially impacted, the neighborhood wells. I think in his testimony it's something less than a one-foot drawdown. But that would be our second panel would be solely focused on water. Those three reports will be put in the evidentiary record, and he will be available for your questions.

Our final panel will be a two-person panel dealing with the environmental and public process issues. We'll have Ms. Kenda Pollio, with whom you're familiar, and Mike Warner, with whom I think you're familiar as well. Ms. Pollio will talk about the public process. And as the Committee has come to expect, this is the typical extensive, vigorous public process that projects have before they're brought to you. She will also talk about land use impacts, because that's her specialty area, including her testimony also touched upon the noise and communication factor in the statute.

Mr. Warner will talk about the biological and cultural impacts. He will point out to you that a Class 1 cultural survey has been done, and that a Class 3 cultural survey will be done, in fact, is in process, a pedestrian

survey that will be conducted by the Hualapai Tribe or by a group affiliated with the Hualapai Tribe. He will also present some testimony dealing with visual impacts. He will use the simulations that you found in your application and will go through those with you. And then he, finally, will be the witness who will opine on environmental compatibility.

I would like to just mention one other -- a few other technical things before I close and we get to public comment. You have been given an exhibit book and a notebook. It hopefully looks like this. It contains on the cover page a list, a table of contents.

The only item that I believe you need to add to that table of contents is a speech that has been passed out to you. It would be -- you should have an Exhibit No. 24, which is the letter from Mr. Victor, if you look at the table of contents that you have. And that was passed out this morning, and I believe we were able to update the table of contents that you have to reflect that HVS Exhibit 24, which is Mr. Victor's letter.

We also handed out this morning the text of a recent speech from Governor Brewer, which Mr. Bartlett will be using to establish the Arizona perspective on building of solar facilities. That won't appear in your table of contents, but we have marked it for

identification as HVS No. 25. So that may be loose and may not be in your packet.

Also in your packet, or in this exhibit packet, there is prefiled testimony for each of the witnesses who we will be presenting. We put them in the packet starting with Mr. Bartlett, behind Tab 4, in the order the witnesses will be making their presentations. And each witness in their summary will use slides on the screen. Those slides have also been marked for identification, and behind each witnesses' testimony the very next exhibit will be the slide. So if you turn to Tab 4 for Mr. Bartlett's testimony, Tab 5 would be his slides that he will use in his summary.

So you should be able to work right through your exhibit booklet from Exhibit No. 4 all the way through Exhibit 13 with both their prefiled testimony and their slides. So it should be in that order.

CHMN. FOREMAN: Counsel, I did not receive HVS-12, Mr. Warner's testimony, prefiled testimony.

MR. CAMPBELL: We will rectify that --

CHMN. FOREMAN: Okay.

MR. CAMPBELL: -- before he appears.

Were there any other members -- was that a general oversight or just that one packet? Did anyone else need it?

CHMN. FOREMAN: Did everybody receive No. 12? Okay. So some did and some didn't. All right.

MR. CAMPBELL: We will at the break, perhaps, have Ms. Haberman of our office check with each of the members of the Committee, and if for some reason you're missing that prefiled testimony, we will complete your packet during the break.

CHMN. FOREMAN: Great.

MR. CAMPBELL: With that, Mr. Chairman, the Applicant respectfully would request at the end of testimony that the Committee issue a Certificate of Environmental Compatibility.

We have -- and I believe it is Exhibit No. 23 -- we have prepared a proposed CEC that we'll be able to put on the screen for your deliberation purposes, so that's the proposal that we have made. I believe behind that exhibit, I believe we also separately filed, as required, both that proposed CEC and a redlined version of that CEC that was redlined against the Starwood CEC that you -- is the most recent one that you granted. So we just took the most recent solar CEC that you granted and showed you where we made changes, and so we have that in there for the deliberation purposes.

And with that, Mr. Foreman, I conclude my opening comments. Thank you.

CHMN. FOREMAN: All right. Member Houtz.

MEMBER HOUTZ: Mr. Campbell, when your witness comes and discusses the dry cooling, I hope that there is also discussion of wet/dry hybrid cooling.

MR. CAMPBELL: Mr. Houtz, there will be. I was using that as a shorthand. We will discuss dry and dry hybrid to show what the technology differences are with those two.

MEMBER HOUTZ: All right.

CHMN. FOREMAN: Let's see if we can take some of our public comments now. And Kenda, if you could check and see if there are any more that are back there, it would be appreciated.

We had a speaker comment slip from John Salem, the mayor of the City of Kingman. Mr. Salem, are you present?

If you would please, sir, just step up to this podium and tell us your name, and spell your last name for the court reporter.

MR. SALEM: My name is John Salem, S-a-l-e-m. I currently serve as the mayor for the City of Kingman. Good morning, Mr. Chairman, and Committee members.

I'm just going to comment just real quickly on the four-part process that the City of Kingman has come to an arrangement with Hualapai Valley Solar with respect to

our wastewater treatment plant and the reuse that will be manufactured from that wastewater treatment plant. Back in June, June 26 of 2009, the City of Kingman had come to the formulation of a letter of intent with Hualapai Valley Solar, with the city having every intention of selling and providing that reuse water, that effluent water, in whatever capacity that we could generate, and that Hualapai Valley Solar has every intent to purchasing that.

Just last week at a council meeting, we took it a step further and we have been able to generate a memorandum of understanding, which is more of a binding document that pretty much states the same thing as the letter of intent, except with the -- it's more of a binding contract. It's not to the point of a contract, but it is a -- it's more of a binding document.

We are in the process with Brown and Caldwell, the design firm that is the caretakers of the new wastewater treatment facility just north of town, and they are helping us draft wastewater management policy having to do with that reclaimed water, the reuse water. And it will be patterned and modeled after other municipalities in the Maricopa County area. It is in draft form, and that's going to be the document number three that will help us along with coming to ultimately a contract with Hualapai Valley Solar and the City of Kingman.

The wastewater treatment facility, upon completion in the fall of 2011, it will be capable initially at the very minimum of a million gallons a day of reuse. We have the opportunity to extend that to 1.7 million gallons a day, which is approximately between 1,800 and 1,900 acre-feet of water per year. It's my understanding that Hualapai Valley Solar is going to need somewhere between 2,275 and 2,400 acre-feet of water, so we will be able to provide initially a substantial portion of their water use need. That seems to be the hot topic, especially in this area, about the water, and we have every intention of providing whatever means necessary to give them that water.

The north wastewater treatment facility ultimately will be able to handle 5.1 million gallons a day, which is more than enough that they'll ever need. As the city grows and as more influent will come into that north wastewater treatment plant, we have every intention of selling whatever we can, if there's a potential buyer, and we can manufacture that water to whatever specification that may be needed.

In addition, we think that -- and it's my personal opinion, and I share that opinion with several other of my colleagues, that we have been able to develop a very good relationship with Hualapai Valley Solar over

the last six months, and we have every intention of moving forward and helping them in whatever capacity that we can with this project.

We think that this will be an economic boon to our region. It's my understanding that the construction costs alone will be upwards of $2 billion. Something kind of amusing, a little tidbit of information that just came to me recently was a million dollars in hundred dollar bills weighs about 35 pounds. $2 billion weighs 35 tons if it was in hundred dollar bills. We would like to have a few tons come to us here in Kingman. This could be just what we need to help us climb out of this economic downturn that we've been experiencing.

And with that, I would be happy to answer any questions that you may have.

CHMN. FOREMAN: Questions from Committee members.

MEMBER MUNDELL: I have one.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you. Good morning.

MR. SALEM: Good morning, sir.

MEMBER MUNDELL: Just one question. I wasn't clear. Is the wastewater facility going to be owned by the City of Kingman or is it privately owned?

MR. SALEM: No. The wastewater treatment facility is owned by the City of Kingman.

MEMBER MUNDELL: Okay, thank you.

MR. SALEM: You're welcome.

CHMN. FOREMAN: Member Houtz.

MEMBER HOUTZ: Mr. Mayor, is the city negotiating with other potential power plants in the area to use the effluent?

MR. SALEM: No, we are not. This is the only one in the area that it would actually be feasible to get that water to them. There are no others to my knowledge.

MEMBER HOUTZ: That's interesting, because at least one has come to the department and said that they're going to buy effluent from you.

CHMN. FOREMAN: Member Wong.

MEMBER WONG: Thank you, Mr. Chairman.

Mayor Salem, welcome to the committee. Good to see you. I have a question about the -- you have already expressed the City of Kingman's desire to have this project; is that correct? You support the project?

MR. SALEM: Absolutely.

MEMBER WONG: You mentioned for economic development reasons and all of the direct and indirect impact economically to the city; is that correct?

MR. SALEM: Yes, sir. The economic benefit to this region is just going to be hugely substantial. The construction jobs alone for, you know, for the three-year

buildout, these people that are building this facility are going to have to have a place to live; they're going to shop in the Kingman area; they're going to buy their supplies; they're going to stay in our hotels; they're going to eat in our restaurants. It's going to be -- you know, the trickle-down effect and the ripple effect of the monies being spent just in the construction of it will be just astronomical for our region here.

MEMBER WONG: And Mayor, you are aware that this project is positioned at this time to be either a solar concentrated technology requiring the treated effluent that you just described, or a photovoltaic plant which would not necessarily use that quantity of water. Are you aware of that?

MR. SALEM: I wasn't aware of the photovoltaic portion of it. It was my understanding that it would have been a 340-megawatt concentrated solar plant. I didn't know of the other alternative.

MEMBER WONG: The photovoltaic plant, I don't know the specifics about the economic spin-offs from that. Maybe I would ask Mr. Campbell to address that. But if that's similar in economic benefit from a direct and indirect benefit to the economy, would that be a -- would you support that project as well?

MR. SALEM: Oh, yes, sir, I certainly would. I

would support any kind of a project of this magnitude in this area.

MEMBER WONG: But you wouldn't oppose it just because you have nowhere to sell your treated effluent?

MR. SALEM: No, absolutely not. There will be other potential buyers, I'm certain, within the next several years that could be possible, you know, recipients of that wastewater.

And it's important to note, too, that the City of Kingman in the production of that effluent water, the reuse, we are only in it just to break even. This is the enterprise funds that -- or the enterprise -- in our public works department, the water and wastewater and treatment -- excuse me -- the water, wastewater and sanitation departments are enterprise businesses, so to speak. And by statute, we are only allowed to collect from our ratepayers just what it costs to produce. We're not in the business to make a profit. So if we didn't sell them the wastewater, the reuse, we would sell it to somebody else if the need should arise or if there was a qualified buyer.

MEMBER WONG: Mayor Salem, you stated earlier in your testimony that there would be between 1,800 to 1,900 acre-feet per year from this wastewater treatment plant, and then you stated that the project itself would

require more than that, to the tune of 2,275 to 2,400 acre-feet of water per year. So the difference there has to come from another source.

Could groundwater -- is there an issue that Kingman, the City of Kingman has identified of the other sources that at least the earlier potential intervenors had expressed? Is there a problem with meeting that gap, that deficit?

MR. SALEM: This is just strictly my opinion, but if there's between a 300 and 500 acre-foot per year shortfall, temporarily, anyway, if they were to use groundwater, I don't think that that would be an issue at this point.

Would it be a responsible thing to use 2,400 acre-feet of water per year to run a concentrated solar plant without reuse? I don't think that that would be a responsible thing to do. But for temporarily until the City of Kingman can provide their entire need, if there's a shortfall temporarily, I don't think that that would be an issue or a problem.

In that area it was originally proposed for residential, and they -- the people that were going to build there had water rights to the tune of better than 6,000 acre-feet of water per year. So this is substantially less if it's 300 or 400 acre-feet for the

short term. I really don't see as to where that would be a problem. It's just my opinion, though.

MEMBER WONG: When you described the short term, is there a time frame on short term? Is that two to three years? Four years? Five years? What do you mean by short term?

MR. SALEM: Well, the City of Kingman has been growing at the rate, on the average, of 3 percent per year. It would be -- we would probably be able to -- this is just conjecture. I'm just guessing. But we would be able to supply the majority of their need, if not all of their need, within 10 years, I would say.

At the very beginning, based on what we have design capable is a million gallons of A-plus effluent per year, which would be -- or excuse me -- per day, which would be almost half, if not better than half of what their need would be initially just right out of the gate.

Our influent is between 1.4 and 1.5 million gallons per day going to that wastewater treatment plant now. By the time it is built, we think that it will be probably closer to 1.6, 1.7 million gallons a day. So you can see that in that space of time, with growth and more people getting off of septic systems and being hooked on mainline for our sewage system, it's going to increase. And there's substantial room for growth with that

wastewater treatment plant, all the way up to 5.1 million gallons a day.

So I anticipate that in 10 years or less, we would be able to supply the Hualapai Valley Solar with all of their water need using nothing but reuse.

MEMBER WONG: Would it be your testimony, Mayor Salem, that the City of Kingman would not have a formal opposition to groundwater use and you would not have a concern with its impact on the aquifer? Is that --

MR. SALEM: I would just be speaking for myself and not for the council or any of my colleagues, but I don't have a problem with it. I haven't gotten -- as you all know, in government, in order for me to make a statement on behalf of the city council and the rest of the city government, I would need to get permission from them to make such a statement. So just on behalf of myself, I would say that that's not a problem.

MEMBER WONG: But during the City of Kingman's public testimony and that process that you went through, was there any formal position by the city?

MR. SALEM: There was a resolution that we had drafted to support the project, as well as the letter of intent and the memorandum of understanding. Formally, the city is behind this.

MEMBER WONG: But no formal position about water

usage that I just asked you about?

MR. SALEM: No, not yet. No. And that's going to be part of the policy that is in draft right now. It just hasn't been approved yet.

MEMBER WONG: Thank you very much.

MR. SALEM: You're welcome, sir.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you, Mr. Chairman.

And as he usually does, Member Wong asked a lot of the questions that I was thinking of and a lot of good questions. But just so I'm clear, the wastewater plant is scheduled to be completed by when?

MR. SALEM: It's going to be somewhere in the area of the fall of 2011.

MEMBER MUNDELL: And that's the first phase?

MR. SALEM: It will be completed then.

MEMBER MUNDELL: Okay. Because I thought you said initially you would be able to have one million gallons.

MR. SALEM: With the equipment that's in design right now, at the very beginning, initially, it would be a million gallons a day of reuse, with the option of adding additional filters for 1.7 million with the initial design.

MEMBER MUNDELL: So however we describe it, you

have different -- maybe not phases of the building itself, but you have envisioned different phases of the equipment that can be utilized for the effluent?

MR. SALEM: That's correct.

MEMBER MUNDELL: Okay. And then in your discussions with the Applicant, when did they indicate to you that the plant -- their facility would start production of electricity?

MR. SALEM: They would -- I'm not certain as to when they would start production, but their construction process would begin roughly about the time that our wastewater treatment plant would be completed.

MEMBER MUNDELL: Let me ask it differently. When will they be using a million gallons per day of effluent?

MR. SALEM: It's my understanding they'll be using it as soon as they begin to produce electricity. All the infrastructure will be built by the time they're up and running.

MEMBER MUNDELL: That's why I asked -- my initial question was when did they tell you they would be up and running? If they didn't tell you that, we'll ask them.

MR. SALEM: They didn't tell me an exact date.

MEMBER MUNDELL: And as I understand it, your wastewater treatment facility would be built even if we didn't have this Applicant in front of us for this, for

their plant; is that correct?

MR. SALEM: That's correct. It's under production right now. It's under construction.

MEMBER MUNDELL: And to follow up on Member Wong's question, so the record is clear, the City of Kingman has taken a formal position with a resolution for the plant, but they have not taken a formal position on the use of groundwater for the plant?

MR. SALEM: That's correct.

MEMBER MUNDELL: Thank you.

CHMN. FOREMAN: Mayor, I know you didn't come with the idea of being a witness. In order for the Committee to consider what you have said, we need to put what you have just said in the record, and I wonder if you would have an objection to being sworn as a witness.

And what I would do is ask you if you had been sworn initially whether you would make the same statements as testimony that you have made and give the same answers to the questions that the Committee members have given you as you have made. Would you be willing to do that?

MR. SALEM: I would be willing to do that.

CHMN. FOREMAN: Do you wish an oath or affirmation?

MR. SALEM: I'm not certain. An oath would be fine, I guess.

(John Salem was duly sworn by the Chairman.)

CHMN. FOREMAN: All right. Is there any cross-examination that the Applicant would like to make at this time?

MR. CAMPBELL: No, Your Honor.

CHMN. FOREMAN: All right. Very good. I think what you have told us is important. And as I said, I wanted it to be in the factual part of the record so that the Committee and the Commission could take it into consideration.

Do you have anything else that you wanted to say?

MR. SALEM: No, sir. I just thank you for the opportunity for me to address you today. Thank you.

CHMN. FOREMAN: Thank you for coming.

All right. And I hope you folks understand why I did that, because the questions you asked were important.

MEMBER WONG: Thank you.

CHMN. FOREMAN: All right. Is Ron Walker here?

MR. WALKER: Yes, sir.

CHMN. FOREMAN: Mr. Walker, would you step forward. And Mr. Walker, you're the Mohave County Manager; is that correct?

MR. WALKER: That's correct, sir.

CHMN. FOREMAN: All right. Maybe we should do the same thing with Mr. Walker and just swear him right

now so we don't have to go through this again.

We are very interested in your input, and so if you don't mind, I would appreciate it if you would be willing to take an oath or affirmation.

MR. WALKER: Yes, that's fine.

CHMN. FOREMAN: Do you wish an oath or an affirmation?

MR. WALKER: The oath is fine.

(Ron Walker was duly sworn by the Chairman.)

CHMN. FOREMAN: All right. Now, tell us who you are, and spell your last name for the court reporter.

MR. WALKER: Ron Walker. I'm the county manager for Mohave County. That's W-a-l-k-e-r.

First, Mr. Chairman, Committee members, welcome to Mohave County. On behalf of the board of supervisors, we appreciate the fact that you're here today. My purpose this morning is to present the Mohave County Board of Supervisors' official position on this project as it exists today on the public record.

On November 16, 2009, the board passed a resolution granting a major general plan amendment and an area plan amendment for the Hualapai Solar for a proposed 340-megawatt concentrating solar power generating facility. The record cites a unanimous vote in favor of the project.

The resolutions addressed the general plan policy that I know has been under consideration that -- where it says it will only approve dry cooling when the aquifer is threatened by depletion of subsidence. This issue was fully debated in board meetings at the planning and zoning commission hearings, and the board has no evidence at this point to indicate that the aquifer is either suffering from subsidence or depletion.

Also, our general plan policy in 36.12 recommends the county only pursue and support industries that have a smaller environmental footprint as measured by less use of water and energy resources and fewer emissions. The board believed that this project met those broad guidelines when they approved the general plan and area plan amendments.

On water usage, it was presented to us an analysis of water adequacy, a File No. 43-402285, dated November 7, 2007, where ADWR concluded there was sufficient water to a depth of 1,200 feet below the land surface available on physical continuous and legal basis to support 223,580 homes per the ADWR 100-year water adequacy requirements. Therefore, it is believed that there is sufficient water for this project.

However, water will also be addressed under the land use regulations for future zoning for this project. The planning and zoning commission recommended and the

board approved a public participation plan that included at least three public meetings other than planning and zoning commission and board meetings to present this project.

The project -- yes.

CHMN. FOREMAN: If I could stop you there just for a moment. If there's anybody here who is driving a black Dodge truck, apparently there has been an accident in the parking lot and the truck has been involved in it. So you might want to check on that.

MR. WALKER: That's important.

MS. POLLIO: It is a non-guest. The black Dodge truck is a non-guest, and the person that bumped it is a guest. So the guest is out there waiting to resolve the issue with a non-guest.

CHMN. FOREMAN: All right. I'm sorry. Please proceed.

MR. WALKER: I'll start once again on that paragraph, because I think it's important relative to the ability for the public to participate in this process.

There was a public participation plan approved by and recommended by the planning and zoning commission. The board approved that for three public meetings outside the public meetings with the planning and zoning and the board of supervisors.

The project managers so far have complied with every county requirement to date. I will say from the county's perspective that more work is going to have to be done to gain the county's final approval for this project. The project will ultimately have to comply with all applicable county ordinances, state and federal requirements, including the Corporation Commission, ADEQ, and others. Only then will the county board reconsider a final approval and permitting for this project.

Among those things that still will have to be accomplished by the Applicants would be they'll have to go through the rezoning process where water will be considered once again. They'll have to go through a site plan approval, building permits, including grading plans, all of the appropriate buildings, all of their trough systems, flood plain determination and use permits, right-of-way permits for any work in the county road right-of-way or to divert any traffic onto a county right-of-way, and also anything relative to the environmental health aspects of this project.

So at this point, as it exists today, the board is in favor of moving this project forward and to go through all of the other kinds of situations that they need to go through.

CHMN. FOREMAN: Any questions from the Committee

members?

Member Rasmussen.

MEMBER RASMUSSEN: Mr. Supervisor, in the discussions, was there a preference in those discussions regarding either the photovoltaic or the concentrated solar in terms of -- obviously there's an impact on water use, but was there that differentiation in terms of your discussion?

MR. WALKER: Yes, there were those discussions. As a matter of fact, if the Applicant does not have the minutes from all of those meetings, they can be provided to you to give you an idea of what those -- certainly from the public participation there was lots of recommendations about different kinds of technologies other than what had been presented by the Applicant, and so those things have been put on the public record.

CHMN. FOREMAN: Member Youle.

MEMBER YOULE: That was my question, too.

CHMN. FOREMAN: Any other questions?

Member Wong.

MEMBER WONG: Thank you, Mr. Chairman.

Mr. Walker, you're the county manager; is that correct?

MR. WALKER: That's correct, sir.

MEMBER WONG: You attended all of the public

hearings relative to this project; is that correct?

MR. WALKER: I attended all of the board of supervisors public hearings.

MEMBER WONG: At any time during those hearings was there an opportunity for public input regarding water usage, and more specifically groundwater usage?

MR. WALKER: Yes, sir.

MEMBER WONG: And what was the -- was there a substantial participation in opposition based on groundwater usage from the public?

MR. WALKER: I guess I would deal with the issue about the relevance of substantial. I would say that people had the opportunity, including those today who had petitioned to be intervenors, among others. So yes, there's always a heated debate relative to groundwater use.

In my opinion, there seems to be a misunderstanding of some of the Arizona groundwater use statutes relative to those areas outside of a groundwater management area. But yes, sir, they've been fully discussed.

MEMBER WONG: Was it determined by the board of supervisors and your staff in response to those citizen concerns that those were unfounded, unsubstantiated, or misinterpretation of statutes? How did you address those

specific concerns?

MR. WALKER: Well, first, we don't have any qualified hydrologists on the Mohave County staff. So otherwise, based on the doctrine of beneficial use. It has been, and it's not necessarily a unanimous agreement, that the county is not in the groundwater use management. We have no regulatory authority, so we have to defer those kinds of water-use decisions either to the Arizona Department of Water Resources, or certainly in the case of the Line Siting Committee, to make those kinds of considerations where you may have the legal authority to deal with some of those things that we don't believe we have. Now, having said that, from the water use standpoint, we do have a duty to consider water when it comes into land use regulations. We may have some more ability to get into the groundwater usage area.

However, as I have -- perhaps I did go through the water information that was presented to us from ADWR on the 100-year water use certification. In that were 223,580 homes, which could be an alternative use of this. As a matter of fact, prior to the project coming forward, it was going to be a residential area, at least it had been approved tentatively to be a residential area. And the figures that were presented to our board of supervisors was for that number of homes, they would use

like 43,432 acre-feet of groundwater a year, and an additional 26,161 acre-feet of effluent for that number of homes.

Now, I will defer to the Applicant about their final water usage, but it was our appraisal that this project is going to use substantially less water than had been approved with the ADWR 100-year water adequacy statement.

MEMBER WONG: So, Mr. Chairman, Mr. Walker, you stated that the Mohave County does not have any hydrologists on staff?

MR. WALKER: That's correct.

MEMBER WONG: Did you retain a hydrologist specifically to analyze this project?

MR. WALKER: Our hydrology studies normally for those projects that are under the adequate water supply laws of the State of Arizona, mainly subdivisions, we rely upon ADWR to make those kind of determinations for us.

MEMBER WONG: Did you have somebody, a staff person from the Arizona Department of Water Resources, the state, come before the Mohave County hearings to express their opinion about the water usage for this project, or did you just rely on their written documentation for a different project on the same site?

MR. WALKER: We made our determination based on

the ADWR document that I had indicated earlier.

MEMBER WONG: But the document you referred to was for a different use of that land?

MR. WALKER: It was for a different use of that land. However, it is what we used as a base for our decision that we did not see, based on what we believed the proposal will be for the water use that it would use, that this project would use up to the amount of water that they had been granted an allocation on that land.

MEMBER WONG: So, Mr. Walker, there was no one that was expert in hydrology that was present at any of the county hearings to address water usage issues, correct?

MR. WALKER: We had no one there. I couldn't speak for who else might have been there.

MEMBER WONG: And so there was no one other than the documentation from the Department of Water Resources, the state?

MR. WALKER: That is correct. I would also remind you that what has been approved at the board of supervisors so far is only a general plan amendment and an area plan. So the final decision on this project will come after those kinds of decisions and those kinds of presentations have been made, both here and certainly probably in other places as well. We will consider all of

that before we make a final decision on the project.

CHMN. FOREMAN: Let's remember that Mr. Walker came here expecting to give a short public comment and not prepared for cross-examination.

MEMBER WONG: I understand. I understand. I'll finish up with one more question, Mr. Chairman. Thank you. But you did swear him in.

CHMN. FOREMAN: I did. And I did so because I wanted to make sure that what he was prepared to give us was something that we got in the record, because it's valuable and important.

MEMBER WONG: Yes, yes.

Mr. Walker, I apologize for, you know, putting you in the hot seat, and I just got on a roll.

So therefore, the documentation that the county supervisors at your public hearings on this project that you relied on was the written documentation by the Department of Water Resources prepared for a different use of that land, and that was used to refute the opposition testimony of the public that had concern about water usage; is that correct?

MR. WALKER: Mr. Wong, Mr. Chairman, I don't think I would use the word refute. I think that was what was presented on the public record, and that was upon which the basis that the board made their decisions as

they exist today.

MEMBER WONG: Very good. Thank you very much.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you. Mr. Chairman, with your admonition, I'll try to be brief, but you did swear him in.

CHMN. FOREMAN: I did. And I'm sure that the folks in the audience will have difficulty figuring out which members of the Committee went to law school. Go ahead.

MEMBER MUNDELL: Thank you, Mr. Chairman.

Good morning, Mr. Walker. It's good to see you again. You and I go way back, probably 10 years, on different issues with this Committee and also the Corporation Commission.

So I just to clarify what Mr. Wong asked. The study that was done by ADWR was based on the residential usage of this property?

MR. WALKER: Yes, sir. The application was made by the prior owners of this property. I believe it was Rhodes Homes who got their 100-year water adequacy statement from ADWR.

MEMBER MUNDELL: Well, I certainly remember that issue in my prior history. In any event, I just wanted to clarify what you said. The county does have some -- quite

a bit of impact on water usage by the type of zoning they approve. Would you agree with that statement?

MR. WALKER: I would agree, sir. As I said earlier, the zoning part is to come later, and we --

CHMN. FOREMAN: I'm sorry. Whoever has the telephone that rang, please step outside. And the next phone that rings, that person is going to need to go outside, too. I'm sorry.

MEMBER MUNDELL: I better turn mine off, Mr. Chairman, and make sure that I don't have to go outside.

MR. WALKER: Mr. Mundell, under Growing Smarter and land use regulations, I think we do have an ability to make some decisions on water usage. I will tell you that there has been a lively debate among many of us regarding our ability to regulate groundwater. I've had that debate with several members of our legal staff, and the opinion of legal staff is when we get to the zoning portion of this, that under land use regulations I believe it says we must consider water. However, that consider is a very broad area. I, as a county manager, like to be a little more precise and succinct about what that means. But that is -- it will and can be an issue relative to land use, and they still have to go through a zoning process subsequent before they can get any final approvals.

MEMBER MUNDELL: And certainly if you grant approval of a subdivision for, you know, four houses per acre versus one house per acre, you're going to impact water usage, aren't you?

MR. WALKER: I would assume that to be so, yes.

MEMBER MUNDELL: Even though you don't have direct regulation based on your testimony, you do have -- the county does have indirect ability to impact water usage?

MR. WALKER: If you're speaking in subdivisions, I would say yes, sir.

MEMBER MUNDELL: And then just to make sure I'm clear on your testimony, the amount of water usage, based on your understanding, that the plant will use will be less than what would have occurred if the residential development had come to fruition?

MR. WALKER: It's our understanding if the residential development went to its full potential buildout that the water usage for that would be higher than what it's going to be proposed for this plant.

MEMBER MUNDELL: Thank you very much for coming down and testifying today.

MR. WALKER: You're welcome, sir. Nice to see you again.

CHMN. FOREMAN: Member Palmer.

MEMBER PALMER: Thank you.

It would be 20 times higher or more?

MR. WALKER: I would not speculate on those since I'm under oath.

CHMN. FOREMAN: Does the Applicant have any cross-examination?

MR. CAMPBELL: Just one area of questions following up on Committee Member Wong's questions. I would like to hand Mr. Walker, if I could, what has been marked as HVS Exhibit No. 24.

Just a minute, Mr. Walker, and I'll read into the record what that document is. It is a September 12, 2009, letter from Mr. Victor to a Mr. Nicholas -- is it Hont? Is that how you pronounce it?

MR. WALKER: Yes.

MR. CAMPBELL: Who is the Mohave County director of public services. It has an attachment of an ADWR analysis of adequate water supply, and then a follow-up e-mail from ADWR more recently reconfirming the continued validity of that ADWR document.

And my question, Mr. Walker, is simply following up on Mr. Wong, that in addition to the ADWR documents that the county had before it when they were dealing with general plan amendment, did they not also have this analysis provided by the Applicant prior to voting on the

general plan amendment?

MR. WALKER: I guess I couldn't specifically answer that. I mean, the letter is to Mr. Hont. He directs our development services department. So I had no firsthand information of when he may or may not have received this. And I don't recall if it was in the backup for all of the things that were presented at the public meeting. I would have to defer.

MR. CAMPBELL: Thank you, Mr Walker. We can provide that documentation for them. Thank you.

CHMN. FOREMAN: Is the date of this letter, HVS-24, before the date of the action taken by the county?

MR. WALKER: Yes, sir, it is. The action on the resolution was November 16, 2009.

CHMN. FOREMAN: Great. Thank you very much for coming and doing more than I'm sure you ever anticipated.

All right. We have one more public official that I would like to give the opportunity to speak before we take a break. Is a Robin Gordon here?

MS. GORDON: Yes, sir.

CHMN. FOREMAN: All right. Ms. Gordon, if you would come forward and tell us your name and spell your last name for the court reporter.

MS. GORDON: My name is Robin Gordon. That's G-o-r-d-o-n. And I have the honor of serving the City of

of Kingman on the Kingman City Council. I'm also a 30-year resident of Kingman. I just --

CHMN. FOREMAN: Before you start, is there any member of the Committee who would like to have Ms. Gordon sworn? I'm now in a position of asking that question, because I realize it's a double-edged sword, and I'm not sure.

MS. GORDON: After the last two, I'm not so sure I want to be sworn. No, I would be if you would like.

CHMN. FOREMAN: All right. Go ahead. And if there's a need, we'll address it later.

MS. GORDON: Thank you.

I just wanted to take a few minutes to address this group this morning and talk about the relationship that Hualapai Valley Solar has been working with the City of Kingman. That relationship has given us the opportunity to use effluent that will be produced at the sewage treatment plant that we're currently constructing.

In the past, there were plans, tentative plans to use that effluent for a golf course that was going to be part of the residential subdivision that now is not going to happen. So that is a great opportunity for the City of Kingman. I think it's also steps in the right direction to reuse that effluent for this project.

I think the second point I would like to address

is the opportunity for economic development. Mayor Salem went into quite a lengthy dissertation about the dollars that would be generated as a result of the construction, but we also need to remember the dollars that will be generated as a result of the jobs that this plant will create, and also the exposure that this plant would give to Mohave County and Kingman. Both would be huge, huge pluses for our community. So those are the two points that I wanted to address this morning.

The Hualapai Valley Solar people have been very forthcoming in talking with all of us on the council, apprising us of their plans, and making sure we understood what the plant was. Because I certainly didn't understand too much about this technology since it's not my background. But they have done a good job of making sure that we understood that.

And I just wanted to address those things. And if there are any questions, I'm more than happy to answer.

CHMN. FOREMAN: Do you support the project?

MS. GORDON: Absolutely.

CHMN. FOREMAN: Do you support the project whether it's the CSP technology or whether it's the photovoltaic?

MS. GORDON: Absolutely.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Just to follow up on that last question. You support the project whether there's effluent used or groundwater used?

MS. GORDON: Absolutely.

MEMBER MUNDELL: Thank you.

MS. GORDON: You're welcome.

CHMN. FOREMAN: Very good. Thank you for coming.

MS. GORDON: Thank you very much for the opportunity to present to you.

CHMN. FOREMAN: All right. We're going to take about a 15-minute break. That means we'll start again at 11:10. And I think what I'm going to do is I'm going to try and push through and get the remaining public comment done before lunch. So we may or may not get started on our first witness.

(A recess was taken from 11:55 a.m. to 11:06 a.m.)

CHMN. FOREMAN: If I could ask everybody to take your seat, please, let's get back on the record.

I think the way this has unfolded, we're going to try to -- those of you who would like to talk now rather than talk this evening, make brief public comment. And as indicated earlier, now it's going to have to be brief. I'm going to hold you to two or three minutes. If you want to talk more, we will be having a session at 6:00 p.m. this evening. You're welcome to make a public

comment then.

I was notified that there was someone here who wanted to make public comment who had to leave at 11:30, and I think -- I hope that person's name is Kathleen Murra? Murray?

MS. MURRAY: Murray.

CHMN. FOREMAN: Okay. The speaker comment slip I have here looks like it's M-u-r-r-a.

MS. MURRAY: M-u-r-r-a-y. I was writing really fast this morning. I apologize.

MEMBER HOUTZ: She didn't finish.

CHMN. FOREMAN: Well, if you would step forward and spell your last name for the court reporter, and tell us what it is you would like to tell us.

MS. MURRAY: All right. Thank you. My name is Kathleen Murray, M-u-r-r-a-y.

Okay. I come to you -- I am president of the Kingman/Golden Valley Association of Realtors. I am a municipal -- a brand new municipal utilities commissioner, and I come here not in those capacities. I come here as a citizen of Kingman and a person concerned about our economic condition and development and as a businesswoman.

I have a family that has moved here. I moved here to Kingman seven years ago. My son followed me after the death of my husband. Up until a year ago, he was

making $75,000 a year in Las Vegas as a dish installer. He came here to help his mom. Moving to Kingman, he is now reduced, with a family of four, to making under $30,000 a year in the same capacity. My concern for Kingman is that we need economic help, desperately need it.

In 2008, we had over 30,000 people living below the poverty line in Mohave County. 185 percent of our families fall below the federal poverty level, my son being one of them. It's a family of four. He works 60 hours a week, and he's on food stamps.

We need the 1,500 construction jobs. We need the economic stimulus that this business and this water company will bring to Mohave County. It is a beginning. They'll use our restaurants, use our retail, provide jobs.

We have over -- last year, over 3,000 homes on the market, of which probably 45 to 55 percent were in foreclosure. I know you have seen this same thing in Phoenix, but at least there's jobs in Phoenix. Here, people are living without jobs or they're underemployed, and they're losing their homes on a daily basis.

So that said, I implore you to consider and positively this project. It's important to us.

CHMN. FOREMAN: Do you support the project as it was articulated by the applicant here earlier?

MS. MURRAY: Yes, absolutely.

CHMN. FOREMAN: Very good. Thank you for coming.

MS. MURRAY: Thank you.

CHMN. FOREMAN: I'm sorry, Member Wong. Do you have a question?

MEMBER WONG: Mr. Chairman, ma'am, I'm sorry. I arrived late. What is your name?

MS. MURRAY: Kathleen Murray, M-u-r-r-a-y.

MEMBER WONG: Ms. Murray, would your testimony differ if this was a different technology in terms of photovoltaic?

MS. MURRAY: Not at all.

MEMBER WONG: It would be identical support?

MS. MURRAY: It would be identical. We need economic stimulus in this area.

MEMBER WONG: Thank you, Ms. Murray.

MS. MURRAY: Thank you.

CHMN. FOREMAN: Thank you.

Is there a Shawna Logsdon?

MS. LOGSDON: My name is Shawna Logsdon, L-o-g-s-d-o-n. And I'm representing the Northern Arizona Building Association. I have to apologize. Our president was supposed to speak today, and he's had an accident and couldn't be here. His wife called me this morning, so I'm last minute here.

CHMN. FOREMAN: Was he driving the black Dodge?

MS. LOGSDON: No. Unfortunately, he had an incident with a horse instead so -- not a good one.

I am actually the vice president of the Northern Arizona Building Association and a long-time resident of Kingman, Arizona. I come here to represent the Northern Arizona Building Association in their relationship with the Hualapai Valley Solar. They've been working with them for the past six months on building a relationship on working with them for supporting the development, and also speaking with them in regards to our local community and economic downturn.

We believe that with this development that it will bring the work and future employment to the area that is definitely needed. We've seen such a downturn like everyone has. We understand that they'll have a three-year construction phase with over 1,500 employees employed during that time. That will be a huge impact for this Mohave County area.

Also, being in the construction business, I have seen the downturn in the general contractors and also the subcontractors. This would definitely help them in keeping their business running during this time.

With the approximately 107 permanent employees, that is a big number for this area. We are just a small

community, and 107 permanent opportunities for employment would definitely be beneficial.

The benefits to the city and the county, we also believe that the community, just having this will also bring in other economic projects to this area. And we're just wanting to be here to support them today.

CHMN. FOREMAN: Very good.

Any questions?

MEMBER WONG: Questions for Ms. Logsdon.

CHMN. FOREMAN: Member Wong.

MEMBER WONG: Mr. Chairman, Ms. Logsdon, are the jobs -- are the construction workers within this city and region, or do you have to import them from other parts of the state?

MS. LOGSDON: That is a good question. Because I currently work for a contractor that is based out of San Diego, but we have a local Kingman, Arizona office. And we use our local subcontractors, meaning Mohave County, Kingman, Lake Havasu, Bullhead, and we utilize them, I would say, between 75 and 85 percent of the time. There are some trades on some projects that you do have to bring from Las Vegas or Phoenix.

But right now that's -- the Northern Arizona Building Association, working with Hualapai Valley Solar with this project, the portion and the trades of the

project that can be utilized with local subcontractors, that's what we want to do.

MEMBER WONG: You said subcontractors. What about general contractors? What I'm trying to understand is that -- and Mayor Salem and the council member expressed the desire for economic development. Obviously, you're going to have all spinoffs, indirect and direct.

But what is the direct benefit of those individuals residing in the Kingman metropolitan area?

MS. LOGSDON: Well, speaking from my other hat, being working for a commercial general contractor, there are two things. One, yes, we hope that we get a piece of the action in regards to being able to be a part of the construction of it. But then there's also the potential for long-term employment with development -- or I should say commercial developers like this, because there's always an ongoing either growth or maintenance that they usually hire someone local to do that work.

MEMBER WONG: So is the formal position of the Northern Arizona Building Association supports this project; is that correct?

MS. LOGSDON: Yes.

MEMBER WONG: Thank you.

MS. LOGSDON: Thank you.

CHMN. FOREMAN: Very good. Thank you for coming

and speaking with us.

Now, Jim Kanelos, is he here?

There you are. Yes, sir.

Now, Mr. Kanelos is coming forward. He has previously provided to me and provided to other members of the Committee a document that we'll have marked as Committee Exhibit No. 1. And it's dated January 6, 2010, with Mr. Kanelos' name at the top.

So Mr. Kanelos, would you spell your name for the court reporter, and then summarize what is in this document that you brought me.

MR. KANELOS: Thank you, Mr. Chairman. My name is Jim Kanelos, K-a-n-e-l-o-s. I have a litany of people I am affiliated with, but I won't go through that. Like I say --

CHMN. FOREMAN: All of them are listed in this document?

MR. KANELOS: That document, yes, it is. I'll just summarize it. And I hope everyone would read it at their leisure. Thank you.

I have made this document in a cost/benefit, benefit to the community and the cost to the community. Since I don't have a lot of time, I'll go to the cost to the community, which I consider the Hualapai aquifer is in depletion. More water is coming out than is being

recharged. As to the effluent the city wants to use, in theory it's a good idea. Cost-wise, I don't think they will ever run a pipeline 27 miles to supply the effluent.

When I asked the Applicant if they would use dry cooling, they said it costs too much to build that kind of plant. So I don't think they're going to -- for cost-benefit-wise, they won't use effluent.

As to the groundwater, there's no regulations by the state to accurately give us figures on how much water they will pump. They can estimate, but there is no way of verifying it.

As to property values, unless the county designates all of the property around that plant as heavy manufacturing like they've given the Applicant, property values will go down, especially if you own a home.

Those are my main concerns. It's going to cost the residents of Mohave County a lot more than we're going to get job-wise, a thousand or more temporary employees who will be paid an average federal wage, because if they use their federal monies on this project, they have to be paid that. The permanent employees, well, everybody knows Arizona is a right-to-work state. So there's no guarantee to how much they're going to be paid.

And if this was a photovoltaic, I would be if favor of it. If it was dry cooled, I would even say I

would be in favor of it. But as a wet cooled project, no.

Any questions?

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you. Good morning. Just a couple of questions. I heard your concerns about the amount of groundwater usage. Would your concerns be alleviated if, in fact, this Committee, or ultimately the Corporation Commission, put a ceiling on the amount of the groundwater that could be pumped?

MR. KANELOS: I don't know if they could do that.

MEMBER MUNDELL: Well, I don't know. The Commission has done things similar to that. Having served on the Commission for nine-and-a-half years and thinking about other applications, there's been limitations on other orders as I recall. So my question -- whether they can do it or not, that's really not my question. We can debate the legal merits of that, or somebody else can debate those, or the Applicant can.

My question was if, in fact, a ceiling was put on the amount of groundwater to be pumped, would that alleviate your concerns?

MR. KANELOS: Slightly.

MEMBER MUNDELL: Okay, thank you.

CHMN. FOREMAN: Thank you for coming.

MR. KANELOS: Thank you all.

CHMN. FOREMAN: Jim Rogers. Is Jim Rogers here? Mr. Rogers.

MR. ROGERS: I didn't check the I-wanted-to-speak box, but --

CHMN. FOREMAN: All right.

MR. ROGERS: I'm for the project.

CHMN. FOREMAN: Very good. We'll note that.

Wayne Wissinger.

Give us your name and spell your last name.

MR. WISSINGER: Thank you, Chairman. Wayne Wissinger, W-i-s-s-i-n-g-e-r.

And I would like to state for the record I'm for this project. I'm a long-time resident of Mohave County. I've been here for 41 years. My father settled here back in the '60s, raised his family here. I'm raising my family here.

And it's projects like this that we're looking at for the future. We can constantly build gas stations and those roadside convenience stores, but they're not providing a future for future growth, economic growth, tax base, and mainly, most importantly, future high-tech jobs for our children.

I worked up through the trades from pouring concrete to framing on up to owning my own construction company and owning a real estate company and several other

ventures that I've tried to build in my community. This community needs high-tech jobs to compete with the local markets surrounding us in the United States. This type of a project puts a focus on Kingman that attracts those type of companies. There are companies all over the world that are now looking at these areas, not just Mohave County, but areas where we can go.

It's hard to go to Phoenix and create a new wheel. The metropolitan Phoenix area is already what it is, and to create a new environment there is quite difficult to get everybody to retrofit everything. But we're at the beginning stages. We're where Phoenix was, you know, 60, 70, 80 years ago, and here is the opportunity that we can choose our future. And not to say anything derogatory about Phoenix or the metropolitan areas, but there is a certain thought there that we have the opportunity now to look towards our future and to attract green technology.

We all are using our cell phones. We're all using our laptops. Every one of us have more electrical components in our houses than our parents did, if not by tenfold. Energy concerns are a huge concern. And the last I heard, nobody quit having kids. So with our kids now growing up and starting their families, we need more power. We need more energy. We need more green

technology. We need to stop our reliance on coal, those things that are contaminating our environment, and start looking towards this.

Is this the answer? It may not be the complete answer, but it's a step in the right direction. And hopefully, as we take this step, the people that build upon the footsteps that we take today will increase the knowledge and the technology, and hopefully 5, 10, 15, 30, 40 years from now, the new technologies will be there.

Somebody has to make the first step, and I hope that Mohave County can make that step, and I hope that you guys are in favor of that. I thank you for your time.

Any questions?

CHMN. FOREMAN: Thank you very much for coming and talking.

Jana Selk.

MS. SELK: I'll speak this evening.

CHMN. FOREMAN: Okay. Mark, it looks like Shaxer?

MR. SHAVER: Shaver.

CHMN. FOREMAN: Shaver, I'm sorry. My eyesight is getting bad. -

MR. SHAVER: My name is Mark Shaver. I'm the council representative out of Dolan Springs.

CHMN. FOREMAN: Would you spell your last name

for the court reporter.

MR. SHAVER: S-h-a-v-e-r.

CHMN. FOREMAN: I'm sorry. Your "V" looks awfully like an "X" to me. I'm just getting old. Tell us what you would like to tell us.

MR. SHAVER: Well, we had a great discussion about this at our council meeting. And for us to accept this project, we would like to see that the primary source would be the influent and groundwater second.

Considering that this project happens in our community, it raises a lot of concern. I have attended all of the meetings and workshops that the county has offered from the planning and zoning stage to the supervisor stage. So I'm quite aware of what is going on and I have records of everything that has ever been said.

On December 16, there was a -- U.S. Geological Survey did a hydrology study report and gave it to the board of supervisors. It seems to suggest other things that the county manager has said. Unfortunately, I didn't want to speak about that, but it raises my concern on the way that the county has taken and the direction it wants to pursue on public participation. Recent changes in our local policy has eliminated the call to the public, the public's opportunity to speak on whatever it is that they feel strongly about that's not on the regular agenda.

Unfortunately, the Albiasa project, as you also know, is also in this area. We have several other projects in this area that have a tremendous amount of impact.

It is our hope that the witnesses here will give both sides of the issue of the pros and cons from, you know, not just for the project itself, which we like. You know, we need to go more green. But there's a way about going about it, and there are two directions, two choices in which to take it. So hopefully that will come out in your questions of these witnesses, and we would like to see this.

I'm not very good at public speaking, but if you have any other questions regarding the county's position with their actions, please feel free. I'm more than happy to tell you.

CHMN. FOREMAN: Does the Dolan Springs council support the project as it is?

MR. SHAVER: It supports the project based on the criteria that you're going to be setting forth. What we're looking for is that the influent be the primary source of their cooling water, and the secondary would be the groundwater. That way it leaves more growth for communities to happen in and around the area. That seems more logical a step to take.

CHMN. FOREMAN: And so does the Dolan Springs council support the project if it's a photovoltaic technology?

MR. SHAVER: They're not against it.

CHMN. FOREMAN: Not against it. Okay. All right, fair enough.

MEMBER WONG: Mr. Chairman, Mr. Shaver, I have a sense that you're not real firm on this support position. I hear that you're saying Dolan Springs council supports this project, but then there's hesitation. And then you describe the concern being that you want to make sure that the cooling fluid is from the treated effluent as the priority source, and then the secondary source being the groundwater. Is that the only concern? But I'm hearing something else here.

MR. SHAVER: Well, because of the number of projects that are happening in and around Dolan Springs, it makes it -- we have to decide on which project would be the best suited for the area. We've been watching a lot of shows that was done by a Professor Cayman (phonetic) on -- he hosted a show called the Economist, the best management of resources, transportation, food resources, transportation needs. And based on his modeling and his mathematical equations and computations, it seems to us that we had to make a choice whether it was a wind farm,

another photovoltaic, which is just down the street from it, two concentrated solar towers on 93, which we happen to be a part of that committee. And we are not sure just how Arizona's position is on becoming the renewable energy capital of the States.

We were listening to Mrs. Brewer's statements that she wants to see more of this. Well, we're in a tourist corridor, too. This will have a significant impact on what exactly is happening out there, the effects on the environment, the ecosystem, and tourism. I guess -- I think I just got repetitive there on that one.

The hesitation I have myself is that based on the county's position, there is no problem with the water resource in our state. That's just simply not true. After Katie Couric -- Katie Couric, she did a little episode on Friday on water management out here. And it is in decline, and that's based on her report. That seems to us that that supports Mrs. Truini's position, or the U.S. Geological Survey's position on drought conditions, water tables, and so forth.

I'm not the expert. And I don't believe, since the county doesn't have a hydrologist, that they're basing their decision on lack of evidence, even though that evidence was presented to them.

Earlier, Mr. Wong, you stated and asked that --

or not Mr. Wong. Mr. Mundell, you asked the county manager if there was any influence against these projects utilizing planning and zoning regulations. We feel that we agree with you that there are. They could have stopped this if they choose to do so, but they choose to pursue this course of action, and we're here today based on lack of information.

My problem now is because of the witnesses that are being presented here today, that we could actually -- good intentions are, you know, good intentions. That we may not be taking the best approach to solving this problem. Where I stand is the best way to approach that is to make the influent primary -- and I'm being redundant now and I should probably stop -- and the groundwater secondary. That leaves growth for communities.

MEMBER WONG: Thank you, Mr. Shaver.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you, Mr. Foreman.

Just to clarify, sir, the call to the public is no longer being allowed at what level of government? I wasn't clear about that.

MR. SHAVER: Well, the only level they had it was at the planning and zoning stage where this all began.

MEMBER MUNDELL: So you're talking about the county government. You're talking about the Mohave County

planning and zoning?

MR. SHAVER: Yes.

MEMBER MUNDELL: Do you not have a call to the public at the supervisor meetings?

MR. SHAVER: No, sir.

MEMBER MUNDELL: And then just to follow up on your comments, since you named me specifically, you know, I agree with you that the county has the authority under the zoning powers to impact water usage. Whether they choose to use those or not, that's a different debate. But that's why I asked the question of Mr. Walker to be clear, because I didn't want to leave the record to the point where someone reading it would conclude that this county or any other county doesn't have the ability to impact, even if it's indirectly, the water usage in the county. So thank you. That's more of a statement than a question. Wouldn't you agree?

MR. SHAVER: Thank you.

MEMBER MUNDELL: Thank you, sir.

CHMN. FOREMAN: Member Whalen.

MEMBER WHALEN: Thank you. Can you hear me with this mic?

MR. SHAVER: Oh, yes.

MEMBER WHALEN: Council member, what is the size of Dolan Springs? What is the population?

MR. SHAVER: Just a little over 2,000.
MEMBER WHALEN: And the square miles?
MR. SHAVER: Square miles?
MEMBER WHALEN: Or square mile.
MR. SHAVER: It's small. If you blink, you might miss it.
MEMBER WHALEN: The road access is off of 93 north and west of Kingman?
MR. SHAVER: Yes.
MEMBER WHALEN: What is the state route?
MR. SHAVER: Its called Pierce Ferry Road. Highway 25.
MEMBER WHALEN: How far to the east of Dolan Springs is the project?
MR. SHAVER: You're looking at mile marker 22 once you hit there, and then approximately probably about 10 miles in, 5 miles in, 10 miles in.
MEMBER WHALEN: Has Dolan Springs conducted a planning area that you eventually would believe the size of the community would be, or is it static to that 2,000 residents?
MR. SHAVER: Yes, Dolan Springs has an area plan.
MEMBER WHALEN: Does this encompass that planning area?
MR. SHAVER: Well, we're currently -- because our

community is also involved in the 93 area planning, which deals with the highway road down there and the development, which also encompasses our area plan. Unfortunately, our area stops at mile marker, I believe, 17 or 18. That's the fire district boundary.

Now, we are classified as being -- my address is exactly right in the middle between Meadview and Dolan Springs. And they call that no man's land, but they'll still respond out there. I'm about 10 miles away from that project area.

But because Dolan Springs, half of Dolan Springs falls within that aquifer, we have a significant interest in what happens, not only because of the windmills that are coming in there, but the other CSP that also happens to fall in the Sacramento aquifer. Or no, Detrital. I believe it's Detrital.

MEMBER WHALEN: The residents of Dolan Springs, are they all on individual wells?

MR. SHAVER: Some are, and others go -- they haul their water in.

MEMBER WHALEN: So there is no municipal water supply. It's either individual wells or trucking of water.

MR. SHAVER: Well, no. It does have a water --

MS. BAYER: Mount Tipton Water Company.

MR. SHAVER: Thank you. Mount Tipton Water Company is out there.

MEMBER WHALEN: So that water company provides water for the Dolan Springs area and the unincorporated area around it?

MR. SHAVER: It's in development.

MEMBER WHALEN: It's in development.

MR. SHAVER: We're growing.

MEMBER WHALEN: I think that's all I've got. Thank you very much.

CHMN. FOREMAN: Thank you for coming and talking, sir.

Donna Crouse.

Ma'am, if you would spell your last name for the court reporter, please.

MS. CROUSE: My name is Donna Crouse, C-r-o-u-s-e. I have lived in Mohave County since July of 1997. I have consistently worked in food and beverage and retail -- and real estate until June of 2009. My husband is a carpenter and has lived here seven years, and consistently worked until November 4 of 2009. He is currently on unemployment while I have been volunteering at the Golden Valley Chamber of Commerce since October.

I am gravely concerned for the welfare and commerce of Mohave County residents. Mohave County's

economic development has been long suffering due to the debate of water availability versus industrial demand.

The poverty level of Mohave County as of 2008 was 17.1 percent, as opposed to the state of Arizona's 14.7 the same year. At 14.7, Arizona had the thirteenth highest poverty level in the United States. Unfortunately, nothing has changed in Mohave County to improve our situation, nor the state's since that time.

As of January 2008, the Arizona Department of Economic Security statistical reports stated that there were 68,326 people in Mohave County alone below the 185 percent of the federal poverty guideline.

As the recession has taken its toll, more and more Mohave County residents are becoming more reliant on the state to support their households through food stamps, medical assistance, supplemental income support, and unemployment benefits.

As of October 2009, the unemployment rate of Mohave County was 10.4 percent, the highest it has been in Mohave County since 1994. It is sufficient to say that Mohave County's lack of economic development is now the State of Arizona's financial burden.

Last Friday, January 8, 2010, CBS's evening news with Katie Couric did a report on the water challenges now being faced by those dependent on the Lake Mead and

Colorado River allocations for its resource. According to the report, Arizonans use more water per capita a day than anywhere else or anyone else in the United States, and groundwater does not replenish itself.

We know that groundwater does replenish itself. We're all evidence of that. Though groundwater in Mohave County is not recharging at the previous water levels. Is it due to growth or drought? Or is it even true since, according to the USGS water movement occurrence report, some wells monitored for the report in Mohave County have unexplainably increased in water levels.

Assuming the amount of water used by Arizonans a day is true, my question is: How does the southern population of the state that relies on the Colorado River allocations for survival manage to support the highest water users in the nation and still support its economic development, including farming and manufacturing, with the least water availability in the state?

Recently, these counties have worked with developers of industry towards solutions that have proven to be very effective. Mohave County's location between Phoenix, Flagstaff and Las Vegas, and the location of I-40/I-93 interchange has made it a hub for growth and development regardless of any of our other issues. Mohave County cannot afford to deny development and economic

development opportunity using water availability as the issue. We have to become progressive and aggressive in our search and development of solutions to our water issues.

Hualapai Valley Solar has offered a viable solution to Mohave County's water issues. This project will immediately resign 66 acre-feet of their 900 acre-feet of water required with the land purchase back to the basin, making it available to current and future water users.

After reviewing community concerns over water usage, Hualapai Valley Solar initiated an agreement with the City of Kingman to utilize Kingman's wastewater in lieu of groundwater. This project could further decrease its demand on the Hualapai basin as residential demand on the basin increases and would be the first step towards successful wastewater reclamation and reuse by the City of Kingman.

This project will generate an estimated $20 million per year in tax revenues to Mohave County coffers and could create a residual income to the City of Kingman for the next 35 to 50 years. This project opens the door to much needed secured economic development in Mohave County.

Though Hualapai Valley Solar will be the largest

facility of its design in the world upon completion, broadening the tourist industry in Mohave County, many other power generating facilities are currently being approved or seeking approval within the county, evidence that Mohave County has the wind, sun, and land mass available to support these projects.

CHMN. FOREMAN: Ma'am, may I infer that you support the project?

MS. CROUSE: Yes.

CHMN. FOREMAN: Summarize your thoughts and finish up.

MS. CROUSE: I'm right there.

While water availability will always remain an issue in Mohave County and Arizona, we need solutions that are cost efficient enough to benefit the developer, the consumer, who is the actual end user who bears all costs of power production and usage, and the community as a whole.

We are on the brink of recognizing our economic development potential here. We do not have to remain a significant population dependent upon an already overstressed state to feed, clothe, and house us. There are solutions to our issues, and I support this project.

CHMN. FOREMAN: Thank you.

John, I think it's Scaliatine.

MR. SCALIATINE: Scaliatine.

CHMN. FOREMAN: Scaliatine. I'm sorry. Step forward. And if you would, sir, please spell your last name for the court reporter.

MR. SCALIATINE: My name is is John Scaliatine, S-c-a-l-i-a-t-i-n-e.

Basically, I came here to tackle one issue, wet versus dry cooling. I think if you asked the majority of people that are against this project if they would be in favor of a PV plant, they would all agree, or the majority of them would agree to not using any of the water.

As you know, in the state of California they are putting a hold on all of these power plants that are using the excessive amounts of water. It's very simple. Is our water worth less than California's? If we drive 30 miles further east, does the water mean absolutely nothing to the people of Kingman? The answer is simply no. Our water is very precious.

As far as depletion of the aquifer, I don't think anybody in the world could tell you how much water is down there or how much there isn't down there. The only thing I know is that when I drive to Las Vegas and I cross the bridge, I look at Lake Mead and the Lake Mead indicator is that it's down probably 140 feet. Where has the water gone? Where will the water come from? That's the main

issue.

Any questions?

CHMN. FOREMAN: Do you support the project as a concentrated solar technology?

MR. SCALIATINE: No.

CHMN. FOREMAN: Do you support it, then, as a photovoltaic technology?

MR. SCALIATINE: Yes, I would.

CHMN. FOREMAN: Okay. Very good. Any questions?

Member Youle.

MEMBER YOULE: Do you support the project if it uses effluent as the water source, the concentrated solar?

MR. SCALIATINE: Yes, I would, if there would be a guarantee that it would be used.

MEMBER YOULE: Thank you.

CHMN. FOREMAN: Thank you for coming and talking, sir.

Kirt Lander.

If you would, sir, please spell your last name for the court reporter.

MR. LANDER: Kirt Lander, spelled L-a-n-d-e-r. I'm a 20-year resident of Mohave County. And recently, two-and-a-half years ago, I moved into the Hualapai Valley area.

I support green technology like this, the concept

of it, but I do have a few concerns about this particular project. Mainly, that would be the roads leading in and out of the project. My main route is Antares Road, which is to the southeast, which leads to Route 66, which is a trucking route. The two-and-a-half year proposed construction period will bring a lot of truck traffic in those roads. So I'm concerned about those roads. Right now, they're -- Antares is maintained by Mohave County. And I can tell you that when they blade that road, it's good for maybe a week and it's back to washboard.

Another concern of mine is the groundwater, which seems to be the main issue here. I draw water at 900 feet right now. The well needed some maintenance about a year and a half ago and needed to be lowered 20 feet. That's not necessarily an indicator that the level has dropped 20, but it certainly has not come up.

I think the dry cooling issue, which for those that don't understand what is going on there, that's, as I understand, the reclamation of the water like a closed system. Something like that I would be for, or a photovoltaic I would be for.

Other issue would be materials used, i.e., the panels. Where are these going to be manufactured? Are they made in China, or are we going to benefit the USA with made in USA materials going into the project?

Also, after construction, the 107 employees that will be driving in and out of the project daily adds further load to the roadways.

That's pretty much the extent of my concerns. Any questions?

CHMN. FOREMAN: All right. Any questions?

(No response.)

CHMN. FOREMAN: All right, very good. Thank you, sir, for coming and talking.

And Jack, I think this is Pozenel.

MR. POZENEL: Very good. Yes, sir.

CHMN. FOREMAN: And if you would, again, spell your last name for the court reporter.

MR. POZENEL: Thank you, Mr. Chairman, fellow board members. My name is Jack Pozenel, P-o-z-e-n-e-l.

I'm a local business owner and Kingman resident. I also -- one of the boards that I sit on is the Western Arizona Vocational Education school district board. The WAVE is a school district that focuses solely on technical education. The district overlaps the four member districts of the unified school districts of Colorado River, Kingman, Lake Havasu, and Parker.

Due to the nature of the school district and focus on technical education, we, too, believe that green technology is the wave of the future. But that future

will need an available workforce not only to construct, but also to operate and maintain it. That means training and education.

We are working with the member school districts to determine what current state approved courses are available to add to our curriculum. In turn, we are also developing relationships with companies like Hualapai Valley Solar to determine their needs now and in the future. Not only are we looking at the aspect of classroom learning, but also developing internships and mentorships with these industries. We are also working with them to determine what their future -- what future classroom needs may be needed to proceed forward.

The WAVE stands to help the youth of the community by providing the necessary training these industries will require that will allow these industries access to a viable local workforce instead of from outside the community, like I heard one Commissioner ask that question.

Is there any questions?

CHMN. FOREMAN: So you support the project?

MR. POZENEL: Yes sir.

CHMN. FOREMAN: All right. And the students that you have in your schools are community college level?

MR. POZENEL: No, this is high school level.

It's a joint technical education district. It's a JTED. And we are one of the two newly formed JTEDs in the state of Arizona. The JTEDs have been existing in Arizona for up to 15 years, mainly in the Phoenix and Tucson area. And so our local tax dollars have been supplying those JTEDs. Our voters for this county voted it in a year and a half ago. We formed last January, a year ago, and we're in operation as of July 1st of this year. So we're reinvesting our tax dollars now into the community, into the education of our community.

CHMN. FOREMAN: Member Palmer.

MEMBER PALMER: Thank you, Mr. Chairman.

So your primary revenue source is property taxes?

MR. POZENEL: That and state equalization. And as we know, right now we are receiving our state equalization. In fact, tonight we are distributing the first of our funds to the four member districts. We hope to provide our budgeted for this year up to two-and-a-half million dollars of funds that will be provided to those four school districts.

So that was a combination -- the monies we're providing tonight is a combination of five cents a hundred on real property taxes, plus state equalization. So as long as we continue to get that state equalization --

MEMBER PALMER: You only receive five cents per

hundred of assessed valuation?

MR. POZENEL: Yes, sir.

MEMBER PALMER: So that's pretty minuscule relative to others.

MR. POZENEL: Yes, sir.

MEMBER PALMER: As you well know, half of the property tax that we pay as residents is directed towards schools of one sort or another, including community college districts.

MR. POZENEL: Correct.

MEMBER PALMER: Did you quantify the impact that this proposed site would have on your revenue stream?

MR. POZENEL: No, we have not even looked at that yet. We're just looking at the current budget as it stands now, whatever that may be, and our state dollars since we are so newly formed. There's so much to get the district in place, and so that is what our main focus was for the first year. Now we can start focusing on developing curriculums and be looking at impacts such as that.

MEMBER PALMER: Thank you.

CHMN. FOREMAN: Member Wong.

MEMBER WONG: Mr. Pozenel, to follow up on Member Palmer's question, the project, would that necessarily increase the value of that land, which would then

translate into an increase of revenue stream to your school district? Is that necessarily the case?

MR. POZENEL: I don't know that I can answer that, that it would increase the value of that, but that would generate more tax dollars, correct, which would increase for our school district.

MEMBER WONG: Are you aware if there is any tax abatement that has been granted to the project owner?

MR. POZENEL: No, sir.

MEMBER WONG: There are no abatements or you're not aware of any abatements?

MR. POZENEL: I'm not aware of any.

MEMBER WONG: I would like to learn from the Applicant if there are any abatements on this project as well, from either the county or the municipal or other levels of government.

Mr. Pozenel, regarding training that you have testified about on the technical education, this is the high school level; is that correct?

MR. POZENEL: High school level, yes, sir.

MEMBER WONG: Is there similar training, workforce development, by Mohave Community College or any other educational institution?

MR. POZENEL: There are. In fact, I don't know specifically for green technologies at this moment, but

there are, in fact, right now, 85 percent of our classes at all four school districts, member districts, are what are called dual enrollment, and we have a goal of getting that up to 100 percent. So we are working directly with the community college to benefit those children in not only getting a high school education, but also getting college credit which they can either take into the work force or continue on at a university level and be ahead of those that don't have that opportunity.

MEMBER WONG: Did you hear the testimony of Ms. Logsdon of the Northern Arizona Builders Association?

MR. POZENEL: Yes, sir.

MEMBER WONG: And her comments about the source of construction workers or permanent workers, you heard that?

MR. POZENEL: Yes.

MEMBER WONG: What time frame would it take to prepare students to enter the workforce in time to participate in this project?

MR. POZENEL: I don't have a definitive time frame at this moment, but I do know that this project is going to take a couple of years to get to completion to where they are operating, you know, need operating and maintaining level, as well as other projects in the area.

It's going to take us at least a year to get all

of the necessary classes approved at the state level to add them to our curriculum. So we do have some time frames there, and that's why we're working diligently this year, because we have already turned in those for the state for approval for the 2010-2011 school year. So we're looking at the 2011-2012 school year before we can implement those classes in the classroom, which gives us time to find the certified teachers, and, you know, those instructors necessary to fulfill that need. Does that help?

MEMBER WONG: So you anticipate that the workforce pipeline, local workforce pipeline will be --

MR. POZENEL: At least three years out.

MEMBER WONG: -- developed with local residents; is that correct?

MR. POZENEL: Correct. Within two to three years start developing that pipeline by the time the classes get in place and the education starts.

MEMBER WONG: Thank you.

CHMN. FOREMAN: All right. Very good. Thank you, sir, for coming and speaking.

It's noon. I'll take no credit for us ending exactly at 12:00, but it now seems to be a convenient time to take a lunch recess. We'll reconvene at 1:30. I would anticipate at that time that we will start with testimony

from the Applicant. We're in recess.

(A recess was taken from 12:01 p.m. to 1:32 p.m.)

CHMN. FOREMAN: Let's see if we can get started.

And one thing that I neglected to do this morning was to take roll, and everyone was here except for Member Eberhart. Thank you to my fellow Committee members for reminding me. There are very few statutory requirements that I have to fulfill, and that's one of them, and I don't seem to be able to get it done very often.

All right. Let's begin with the Applicant's presentation. Counsel, you may proceed.

MR. CAMPBELL: Thank you, Mr. Chairman. The Applicant --

CHMN. FOREMAN: Oh, I'm sorry. I do have to do one thing before we get started. During the lunch, the Arizona Building and Construction Trade council had slides that are going to be made a part of the presentation by Mr. Torres, which will be either late this afternoon or tomorrow, and those were distributed for the members. And then I believe there also was a copy left with the court reporter, and those will be marked as exhibits at the appropriate time. So I just wanted to get that on the record.

Now, Counsel, you may proceed.

MR. CAMPBELL: Thank you, Mr. Chairman. The

Applicant would like to call as Panel No. 1, Mr. Greg Bartlett and Mr. Mike LaRow.

CHMN. FOREMAN: All right. We'll start with Mr. Bartlett. Sir, would you prefer an oath or affirmation?

MR. BARTLETT: Oath.

CHMN. FOREMAN: It's okay if you sit down, although if you want to stand up that's fine.

(Greg Bartlett was duly sworn.)

CHMN. FOREMAN: All right. Mr. LaRow, same question to you. Would you prefer an oath or affirmation?

MR. LaROW: Oath, please.

(Mike LaRow was duly sworn.)

CHMN. FOREMAN: All right. Let me ask each of you to give us your full name and spell your last name for the court reporter.

MR. BARTLETT: Greg Bartlett, B-a-r-t-l-e-t-t.

MR. LaROW: And Mike LaRow, Michael LaRow, L-a-capital R-o-w.

CHMN. FOREMAN: Now, Counsel, you may proceed.

MR. CAMPBELL: Thank you, Mr. Chairman.

GREG BARTLETT and MICHAEL LaROW,
called as witnesses on behalf of the Applicant, having been previously duly sworn by the Chairman to speak the truth and nothing but the truth, were examined and testified as follows:

DIRECT EXAMINATION

Q. (BY MR. CAMPBELL) Mr. Bartlett, did you prepare prefiled testimony for this case, which has been marked for identification as HVS Exhibit No. 4?

A. (BY MR. BARTLETT) Yes, I did.

Q. And do you adopt that testimony as your testimony in this case?

A. (BY MR. BARTLETT) Yes, I do.

Q. Mr. Bartlett, I would like to take a few minutes and have you summarize that testimony for the Committee.

MR. CAMPBELL: We will be showing slides on the screen. We did get the projector working again. The slides that are shown on the screen the Committee can find behind Tab 5 in your notebook. Those will be Mr. Bartlett's slides.

Q. (BY MR. CAMPBELL) Mr. Bartlett, can you start your summary simply by identifying the major topics that are covered in your testimony?

A. (BY MR. BARTLETT) Yes. Mr. Chairman, members of the Committee, in my prefiled testimony, I have introduced our company as well as our extended project team. I have gone through to describe the project and our plans for interconnection, reviewed our water usage plans and the sources of that water. I have also gone into detail on both the project need and the benefits to the state of Arizona and to Mohave County. And finally, I have reviewed the public response to the project, and here today I would like to summarize that testimony.

MR. CAMPBELL: And Mr. Chairman, I will at various times during Mr. Bartlett's testimony, in addition to his summary, work in some questions that the Committee has asked during the course of the morning. But beyond that, this will be a summary of his testimony.

Q. (BY MR. CAMPBELL) Mr. Bartlett, start by summarizing your personal, educational, and professional background.

A. (BY MR. BARTLETT) I'm currently the project director for the Hualapai Valley Solar project. I've been here working on this site for about a year now. I'm also a managing director and co-founder of Mohave Sun Power, which is the parent company of the project.

My educational background, I've got a bachelor's and a master's degree in electrical engineering and

computer science from M.I.T. I have worked in the field of energy on various projects and with various companies for the past 25 years. My primary experience has been in project management and project development. I have got experience working in many renewable energy areas, including solar power, hydroelectric power, biomass, waste heat, and other energy efficiency technologies.

Q. Mr. Bartlett, your prefiled testimony goes into some detail on each of the individual principals of Hualapai Valley Solar, but for purposes of your summary, would you summarize the actual experience of those principals in the power plant and electrical infrastructure area?

A. (BY MR. BARTLETT) Yes. Principals of the company have, over the last 25 to 30 years, developed power plants and have owned power plants. Some of those are listed there. We have also renovated various hydroelectric power plants. Three examples are given.

And in addition to that, we have negotiated successfully various power purchase agreements, upwards of 500 megawatts total, with some of the utilities shown there.

Q. And Mr. Bartlett, briefly also give the Committee an overview of your extended team that is discussed in more detail in your testimony.

A. (BY MR. BARTLETT) Well, the key to any successful power plant developer is really to select the most experienced team of engineers, consultants, and suppliers. In our case, our engineering firm has worked on more than half of all of the global concentrating solar power projects in the world today. They have five projects in construction today, actually one finished, the Andasol 1 project. Andasol 1 was the first parabolic trough plant with a thermal energy storage system that's been financed and built and successfully commissioned in Spain. And there's a couple of other examples of integrated solar combined cycle projects that Fichtner has worked on.

In addition, we have over the last year developed key relationships with some of the global suppliers of components and materials used in CSP plants. Some of those are listed as well.

Q. Mr. Bartlett, give an overall summary description of the project.

A. (BY MR. BARTLETT) The project site is a little over 4,000 acres. It's private land located approximately 27 miles north of Kingman and approximately 80 miles southeast of Las Vegas.

Our project is a 340-megawatt CSP facility using parabolic trough technology and molten salt thermal energy storage system, very similar to other projects that have

been before the Committee such as the Solana project.

And we're looking for approval on two transmission line corridors. If I could refer you to the map on the placemat in front of you, or we'll put it up on the screen here.

MS. POLLIO: I apologize. We had a tad bit of technical difficulty, which is causing me to scramble. But if you want to go ahead and start, I'll pull this up as you start and you can refer to your placemats.

A. (BY MR. BARTLETT) Okay. If you look at the blue boundary on the placemat map, that's the solar field site itself. The two corridors I mentioned, the corridor that we're using is in the black boundary and the black hash mark going from the solar field boundary out to the BLM utility corridor.

This is our main gen-tie here. We have a second corridor we defined going up north that follows the BLM utility corridor. And I refer to my prefiled testimony, and I believe it's Page 20 that describes those in detail.

Q. (BY MR. CAMPBELL) Just to finish that map a little bit, Mr. Bartlett, what are the brown hatched areas on the placemat?

A. (BY MR. BARTLETT) These two areas are temporary facilities to be used during the construction. I'll just follow through here. This is Stockton Hill Road.

Mr. Campbell showed this in the opening remarks. Antares Road, which was referred to in the public comments, is an unpaved road. Our primary access road comes off Stockton Hill Road right here.

Q. And Mr. Bartlett, one other point of correction. I think your lawyer in his opening statement referred to the 345kV line as the Mead-Phoenix-Perkins line, and was I correct?

A. (BY MR. BARTLETT) No. There's two transmission lines in the BLM utility corridor. The red one on the map used to be called Mead-Perkins, and they like to refer to it today as the Mead-Phoenix project, or MPP in our application.

A parallel transmission line is owned by Western. That is the green line. It's a 345kV line, and Western refers to that as the Mead-Peacock-Liberty or Mead-Liberty line. A third transmission line comes across the Hualapai Reservation from Four Corners and crosses that BLM utility corridor right at our second proposed corridor end point there. That's the Moenkopi-El Dorado 500kV.

Q. Mr. Bartlett, why did the Applicant select this site to bring forward to the Committee?

A. (BY MR. BARTLETT) Well, the press and the public at times believe that every utility-scale solar site is identical and needs to be weighed together as if somehow

they have the same characteristics of water availability or transmission line proximity, but that is not true.

We spent about six months looking and finding this site, looking all around the southwest. And we believe that for the reasons listed, it's one of the best sites for a project like this, not just in the southwest United States, but really in the world.

So we're in a high desert climate here. The amount of sunshine in a year, as well as the elevation up here, which is a lot higher than Maricopa County, actually improves the direct normal insolation, or DNI, making it, obviously, a world class solar site for sure.

The land itself, if I could refer to our application, Exhibit G-15, there's a couple of photographs just to get you an initial view of how remote this site is.

CHMN. FOREMAN: This would be Exhibit G to HVS-1?

MR. CAMPBELL: That's correct?

A. (BY MR. BARTLETT) So G-15. The site is very remote. It's private land, like I mentioned. And as you can see from those photographs, it's very flat and sparse and does not have any significant shading from the forests or mountains.

Another key characteristic of the site that we saw from --

MR. CAMPBELL: Can you hold on? Can I interrupt,

Mr. Bartlett, for just a second? I want to make sure that the Committee -- I see some of them pulling out their applications. I want them to have a chance to actually find G-15?

MR. BARTLETT: Yes.

MR. CAMPBELL: So they have a chance to -- we can put it on the screen as well, though it's much easier to see it in your booklet.

Q. (BY MR. CAMPBELL) Okay, Mr. Bartlett, that's fine. I just wanted to give the Committee a chance to actually find the picture. Go ahead.

A. (BY MR. BARTLETT) The project, as I pointed out on the placemat map there, it's less than three miles from the designated BLM utility corridor with two EHV, extra high voltage transmission systems in that corridor.

Besides transmission and DNI, remoteness, obviously another key site characteristic is water availability. And as has already been testified to and you've heard public comments on, we've got two sources of water available to us. We've got adequate groundwater, and we've got the treated wastewater that we would reuse from the City of Kingman.

And as Mr. Warner has testified and will summarize a little later in the day, we believe that our site is environmentally compatible for our CEC

application.

Q. Mr. Bartlett, as you know, we'll be presenting a hydrogeologist, but can you talk a little bit more with the Siting Committee about water usage for this plant?

A. (BY MR. BARTLETT) Yes. Our current design for the CSP plant uses evaporative cooling, and our estimate of the water used to operate our plant is 2,400 acre-feet per year on average. And that includes about 2,200 acre-feet for the cooling and boiler blowdown, with the rest being for potable water and other general uses.

We've designed a state-of-the-art evaporative cooling system which maximizes reuse of water, is capable of using the effluent from the City of Kingman, as well as water from four on-site wells.

The effluent from the City of Kingman, we've already heard testimony from the mayor. I won't duplicate that, but I will point out that that letter of intent that was signed in June can be found in the binder as Exhibit HVS-14. And the memorandum of understanding that was approved by the Kingman city council on January 4, 2010, can be found as Exhibit HVS-15.

Both Mayor Salem and Councilwoman Gordon gave testimony and public comments earlier to the relationship between Hualapai Valley Solar and the city.

And one last thing I would like to point out is

that we believe our use of effluent for cooling water would be very consistent with the mission of this new blue ribbon committee that is kind of a triad between the Corporation Commission and ADEQ and ADWR. And since we first signed the letter of intent in June, we have met with all three of those organizations to discuss this relationship and this possibility. And the feedback -- and we believe that, you know, this is a shining example of that initiative for Arizona to start focusing on reusing water.

Q. Mr. Bartlett, why does the Applicant believe this project is needed?

A. (BY MR. BARTLETT) I would say there's two primary areas of need. One would be policy and political issues, and the other having to do with coal power generation going away over time, while the demand for electricity continues to go up and will continue to go up in the southwest region.

The policy and political issues are obviously the state renewable portfolio standards. So you have got Arizona at 15 percent by 2025, Nevada at 20 percent by 2015, and California at 20 percent at 2010, and we expect that to actually go up to 33 percent. In addition, another big policy issue is the expected launch of a national RPS, and we do believe that that is likely to

happen.

As far as the demand going up, in the southwest region in general, and Arizona specifically, the population has been growing and electricity demand has been growing. I give some examples in the slide here taken from a presentation that ACC Chairman Mayes gave in October. For example, between 2000 and 2008, the population in Arizona has grown 27 percent. And looking at 2039, its expected that the population will double where it was at the turn of the century. Electricity consumption between 2000 and 2007 has grown in Arizona at three times the rate overall in the United States. And APS, Arizona Public Service, has estimated that from now until 2025, the peak demand in Arizona will go up 60 percent higher than it is today.

So with that peak demand going up 60 percent -- and as the Committee knows, coal is very important to Arizona, but recently the EPA has been very active in looking at these coal plants both in Four Corners and other places. As you know, the Mohave generating plant in Laughlin was closed down rather than try to retrofit that plant to meet the new EPA standards. And as mentioned in Governor Brewer's speech this week, they're now giving the same kind of scrutiny to the Navajo plant, which supplies Arizona with a lot of power as well.

In addition to the coal going away over the next 50 years, or whatever you believe is going to happen, there's also a volatility of gas prices and the long lead time for new nuclear generation facilities, and those all contribute to the need for this project.

Q. Mr. Bartlett, in addition to meeting needs in the southwest, including Arizona, can you summarize your testimony a little further with respect specifically to other Arizona benefits in addition to meeting the needs you just outlined?

A. (BY MR. BARTLETT) Yes. First of all, as we have heard public comments and even testimony earlier, I would like to note that like Arizona, Mohave County has lost a lot of jobs in the last couple of years. We have spent a lot of effort working on various local initiatives in Mohave County, and we believe that our project would definitely help the employment crisis in the State of Arizona.

Some examples, Lake Havasu City and Kingman is considered a metropolitan statistical area by the Labor and Statistics Bureau of the United States. And between July 2008 and July 2009, the Havasu/Kingman MSA lost more -- a greater percentage of jobs than any of the other 369 MSAs in the United States. And a lot of people even in Mohave County don't realize how significant that is.

It's the worst MSA in the country for lost jobs as a percentage of existing jobs.

Since we started developing the project 12 months ago, we've been building a database of local Arizona contractors, suppliers, potential employees, and vendors. And in addition, as I mentioned, we've been involved in various initiatives. Mr. Pozenel described one this morning, the JTED that we have been helping with. Today in Bullhead City, there's a board meeting of the local workforce investment board. They have some new Recovery Act funding for job training. They have created a program called the Mo-Paz energy careers project. And in my testimony on Page 23, I give some details of our involvement in those programs.

And finally, other general benefits to the state, this project would add to Arizona's experience in developing both renewable energy projects, but also all of the support industries and the local suppliers that will move to Arizona or change some of their business product lines in Arizona to support projects like ours.

There are many benefits during the three-year construction phase. Our plan is to begin construction at the end of 2010, and we've got approximately a three-year construction phase. Some of those benefits, the economic benefits, it's estimated that there will be $30 million in

direct and indirect construction income in Mohave County. In addition to that, there's a lot of taxes, one-time state taxes and local construction taxes that have been estimated at $5 million during the construction phase. And as mentioned a couple of times during the public comments, we are expecting 1,500 construction jobs at the peak of our three-year construction period.

In addition to those new jobs, though, there's many opportunities for local businesses to support those workers and their families. Both in town in the City of Kingman or Dolan Springs or Meadview city where they might live, but also out at the site. And we've had talks with many business members of the community and economic development groups that are already seeing opportunities there to support this three-year construction period.

During the operational phase, the annual economic impact to Arizona has been estimated at $23 million. That's an annual impact to the state. That includes property taxes estimated to be more than $4 million a year, other state taxes. We heard earlier someone mentioned the 107 permanent jobs that would support more than 300 people, as well as create an additional 30 indirect jobs as those new jobs are feeding back into the local economy.

In addition to the economic impact, we have not

included the potential revenue to the City of Kingman for the effluent. And also we expect, as I believe Mr. Shaver said in his public comments, that there is kind of a corridor here for tourism. You've got Route 66, you've got Kingman, you've got Grand Canyon west and the Skywalk, proximity to Las Vegas, ,and we do expect that the scale of this solar plant, its location, and our intended use of effluent for the cooling water will be a big draw to the area for tourists as well as other interested developers.

Q. Mr. Bartlett, let me follow up on, I think, a question that Committee Member Wong had. Because you mentioned annual property taxes more than $4 million, and I believe Mr. Wong wanted an answer to his question about whether there would be a property tax abatement as part of this project.

A. (BY MR. BARTLETT) No, there will not. We will get taxed just as any other renewable energy generation plant.

Q. And also just to clarify the record, the job count numbers that you have there are for a CSP technology; is that correct?

A. (BY MR. BARTLETT) That's correct.

Q. And before we leave the topic of Arizona benefits, I would like to direct your attention to what has been marked for identification as HVS Exhibit No. 25,

which is entitled, "Business Summit of the Western Business Roundtable," Tuesday, January 5, 2010, remarks by Governor Jan Brewer. I believe this was handed out to the Committee members this morning.

Would you like to explain why that's been included as an exhibit for the Applicant and its bearing on the topic of Arizona benefits?

A. (BY MR. BARTLETT) Sure. Policymakers in Arizona have wanted solar plants for some time. We have lots of reports done by the state and state departments and coalitions for quite a bit of time now, and all of this was really reaffirmed very strongly by Governor Brewer's speech.

Some of the examples that kind of back this up and support our project, she has pledged, I believe, $10 million for job training for renewable energy fields and the new jobs that are coming into Arizona for these projects. She also confirms what I had mentioned earlier, the EPA threat to the Navajo coal plant and some effects that may have on the local economy, as well as electricity generation for the state.

She also pledges consideration of all of the economic impacts and really doing a cost-benefit analysis and making decisions based on the overall economic impacts on projects such as ours.

And a couple of the quotes that I found enlightening, where she says that Arizona is not going to do it in the California way, referring to Dianne Feinstein's efforts to make a great deal of desert area in California into a national monument. And there were many solar plants sited there that because of this new legislation, they're looking for sites outside of there.

And another quote was that Arizona is firing on all cylinders, and she specifically calls out distribution, she specifically calls out line siting, regulation, and tax reform. And while some people think that's very progressive for Arizona, you know, this has been a part of the -- you know, what the policymakers have been saying for a few years now, and that's one of the reasons why we looked very diligently for an ideal utility-scale solar site in Arizona.

Q. And Mr. Bartlett, Ms. Pollio is going to talk about the public process, but can you give a brief overview of the public outreach and support for the project?

MEMBER WONG: Mr. Chairman, if I may, before we get off that point --

CHMN. FOREMAN: Member Wong.

MEMBER WONG: -- Mr. Campbell had asked Mr. Bartlett to answer my previous question about tax

abatement and whether there's any discount in taxes.

And Mr. Bartlett, I thought I heard you said no different than any other solar plant; is that correct?

MR. BARTLETT: Right.

MEMBER WONG: So the question is, is there a special category of taxation that's lower for solar plants than any other category?

MR. CAMPBELL: I believe that's a legal question, and I think the answer is yes. I think the legislature in the last year or two passed some legislation that created a tax category for renewable power plants. So we are in that same category as the other plants I believe you have seen. But there is such a statute, and it is different than other kinds of facilities. It's a separate statute for renewables.

MEMBER WONG: Does that refer to real estate, real property taxes, or personal property tax on the equipment that sits on the real estate?

MR. CAMPBELL: Mr. Chairman, Member Wong, I would have to go back and look at the specific statute to answer that question. I don't know whether it's one, the other, or both.

MEMBER WONG: Would you check on that?

MR. CAMPBELL: I sure will.

MEMBER WONG: Thank you, sir.

CHMN. FOREMAN: Any other questions for the witness from the Applicant?

MR. CAMPBELL: And we're not quite done with the summary, but obviously he's happy to answer questions.

CHMN. FOREMAN: Let's finish with the direct and then we'll go.

MR. CAMPBELL: Just one slide and one follow-up question.

Q. (BY MR. CAMPBELL) I think, Mr. Bartlett, you were about to talk about the public outreach and support. And then I have one follow-up question from the Chairman, and then we'll be done.

A. (BY MR. BARTLETT) Yes. As I mentioned, we started working on our project about a year ago. The project went public in March when we filed our amendment to the general plan of Mohave County and our area plan. Since March we have -- it's basically been a continuous process of outreach and educating people and answering questions.

We had five formal public meetings and open houses, not just in Kingman, but we had one in Dolan Springs as well. We have also had about 30 briefings to various civic and other organizations. And I believe my testimony, I think it's Page 29, has kind of a two-page list of all of the groups that we have met with, not just

in the county but throughout the state as well, and some federal agencies.

In September of 2009, as Mayor Salem gave testimony to this morning, Kingman adopted a resolution in support of green energy. Since that time there have been many other renewable energy projects coming to the area to look for potential sites. We have included that resolution as Exhibit HVS-16, and that was approved by the city council in September of 2009.

In addition, Exhibit HVS-18 includes just a sampling of some of the written letters of support that we have received from city, county, and state organizations, as well as some of the elected officials.

And finally, as County Manager Ron Walker had testified to, the approval by the planning and zoning commission in Mohave County and the board of supervisors, both of those approvals were unanimous, and those resolutions are included as HVS-17 as an exhibit.

Q. Mr. Bartlett, finally, were you here this morning when I believe it was Chairman Foreman asked some questions relating to the fact that -- that's my problem.

Mr. Foreman this morning asked some questions relating to the fact that this project is being primarily brought as a CSP 340-megawatt project, but that there were several options of building it in phases, conceivably

using PV technology, and several different interconnection options.

And his question was effectively to ask the Applicant to comment on, well, when are those decisions going to be made and on what basis are those decisions going to be made. Would you please comment on that?

A. (BY MR. BARTLETT) Yes. I'll answer that by saying that we have a year of development into a single phase 340-megawatt CSP project with wet cooling. And after a year, where we are is we have negotiations underway with two utilities who are considering shortlisting us as a CSP project with wet cooling. That is their specific interest, and it's taken a long time to get to that point with those utilities.

We have also received a prequalification from the Department of Energy's loan guarantee program based on our CSP technology, our 340 megawatts single phase with the molten salt storage. And again, that was also a very long process.

In addition, we are negotiating with two EPC contractors. That's the engineering, procurement and construction. That's the primary contractor who will build the project. And both of those EPC contractors are CSP parabolic trough and molten salt storage experienced contractors.

So that is our project. And we've shown you our plan for our interconnection point at the Mead-Phoenix project, the 500kV system at that first interconnection point.

The reason we brought PV into the application has more to do with market dynamics. Specifically, if you recall, I think, beginning with the NextLight project, they actually were required by their shortlisting utility to change from a CSP to a PV. That was at the discretion of the utility that shortlisted them for a PPA.

After that, Starwood kind of followed that lead as well, because the market dynamic is such that certain utilities are interested in PV, certain utilities that may be looking more at price trade-offs and some other economic reasons or some other technological reasons for their own portfolio.

The utilities that we're in discussion with today, again, I'll reiterate, are for our CSP plant with the wet cooling, and that's what they're interested in, and that has been our intended project all along.

Q. Mr. Bartlett, does that complete your summary?

A. (BY MR. BARTLETT) Yes, it does. Thank you.

MR. CAMPBELL: Mr. Chairman, we're happy to have him answer questions now, or have Mr. LaRow summarize, or however the Committee would prefer.

CHMN. FOREMAN: I think there's mounting enthusiasm to ask questions now.

Member Youle.

MEMBER YOULE: Thank you, Mr. Chairman.

EXAMINATION

Q. (BY MEMBER YOULE) Mr. Bartlett, when you talk about the benefits of this in terms of meeting the Arizona RPS standards for investor-owned and cooperative utilities, that presumes, doesn't it, that you would have a PPA with an Arizona utility?

A. (BY MR. BARTLETT) Yes. To apply to the Arizona RPS, it would have to be with an Arizona utility.

Q. You mentioned also that you have got negotiations underway with two utilities. Are either of those Arizona utilities?

A. (BY MR. BARTLETT) No, they are not.

Q. Do you have negotiations ongoing with any Arizona utilities?

A. (BY MR. BARTLETT) Not negotiations, discussions. They're all aware of our project, and they have been for most of the year.

Q. And in whose control area will this plant be?

A. (BY MR. BARTLETT) It's in the Western Area Lower

Colorado, the WALC.

Q. So you will use WAPA as your control area?

A. (BY MR. BARTLETT) Yes.

Q. I think I read that there are no transmission upgrades required; is that correct?

A. (BY MR. BARTLETT) For the Mead-Phoenix project, that is correct. There's available transmission capacity both traveling south into the Phoenix load center as well as north.

Q. But what about I thought there was some reference to a substation, new substation.

A. (BY MR. BARTLETT) We're building a new switchyard.

Q. Okay.

A. (BY MR. BARTLETT) Our transmission, our gen-tie is a 500kV transmission line out to the switchyard site. Currently, Western is designing that in a facility study. They're contracted by Mead-Phoenix. But since Western is the trading manager for the line between the two end points, they're responsible for designing the switchyard, and that process has started.

Q. And your project, part of your project's costs are the costs of the switchyard?

A. (BY MR. BARTLETT) Yes. We pay for it, Western operates it, and Mead-Phoenix project owns it.

Q. If you were to interconnect to your second alternative, which pulls in the Moenkopi line, would there be any upgrades needed on the Moenkopi line, or have those studies been done?

A. (BY MR. BARTLETT) Yeah, we have not done any of those studies yet. We do not -- the Moenkopi-El Dorado line, I believe all of the capacity goes to Southern California Edison, and we do not have a PPA with them.

Q. So we really don't know about upgrades on the -- necessitated by the second alternative yet; is that correct? Am I following that?

A. (BY MR. BARTLETT) The second alternative, its there because of two reasons. One is Mead-Phoenix project, while they're doing the facility study right now for Interconnection Point No. 1, they are also considering doing a reliability study because there's another project that's not yet in the line siting queue approximately, you know, 20 miles from our project. And they are considering doing a study to look at doing a common facility, a common switchyard for our project and theirs, and that second point would be an ideal kind of halfway point if Mead-Phoenix ends up requiring that.

And the other reason for that second point is the Western-owned 345kV system, in order to connect to that, upgrades are needed. And Western has a program called the

transmission infrastructure program, or TIP, where they've got $3.2 billion in authority from the federal government to basically, essentially, guarantee loans for transmission upgrades.

So we have filed a proposal with that program earlier in 2009 for making them aware of the necessary upgrades that would support our project and some of the other projects in the region. We don't have any determination yet from Western as to whether they'll upgrade that line. But in that case, it would be a big change in our plan right now, which is Mead-Phoenix, but we did go ahead and file an interconnection request on Mead-Liberty, and we're actually in a system impact study phase there. And all of that, again, is just to back up this transmission infrastructure program if that funding comes through for that interconnection.

Q. And my final question has to do with the pipeline to bring effluent in. Was the pipeline approved as part of this general plan amendment by the board of supervisors?

A. (BY MR. BARTLETT) I would like Mr. LaRow to answer that.

Q. I can wait until you testify. Are you the pipeline expert?

A. (BY MR. LaROW) I'm working on the pipeline, yes.

That was not part of our general plan amendment because we won't be changing the general plan for the pipeline, just like we didn't have to change the general plan for the transmission line.

MEMBER YOULE: And I'll reserve the rest of my questions on the pipeline for you then. Thank you, sir.

CHMN. FOREMAN: Member Palmer.

MEMBER PALMER: Thank you.

EXAMINATION

Q. (BY MEMBER PALMER) Mr. Bartlett, who will bear the initial capital costs of the effluent pipeline?

A. (BY MR. BARTLETT) Hualapai Valley Solar will pay for the pipeline and its installation. The city will deliver the effluent to the boundary of their treatment plant.

Q. What is that proposed cost?

A. (BY MR. LaROW) The cost for the pipeline itself is about 10 million.

Q. Would Hualapai Solar be amenable to a condition in the CEC that would require use of the effluent?

A. (BY MR. LaROW) I think it's going to be very hard for us to accept a condition that requires it unconditionally, because there are too many moving parts

still with the pipeline, as even the mayor said when he was testifying.

Q. Well, it would be conditioned on the availability of the effluent.

A. (BY MR. LaROW) The availability?

Q. It would assume the availability.

A. (BY MR. LaROW) I think if the water is available at our site on a commercially acceptable basis, then yes.

Q. So that would presume that if the memorandum of understanding comes to full fruition and you have a contract with the city to deliver a million gallons a day, or whatever they're capable of doing, that would be determined at the time that you would consider such a condition?

A. (BY MR. LaROW) What we have to do is we have to make sure that we can get the water to the site. We get the pipeline there, we get the right-of-way all of the way there, that the economics work out that the city can deliver the water that we need.

I think that there's a lot of moving parts still that we need to work out. And if we have a condition in the CEC, it could cause us problems with the financing if we get to the financing point before we have got all of those moving pieces put together for the pipeline and the effluent.

Q. But that would be subject to artful crafting, if there was an artful crafting of that condition.

A. (BY MR. BARTLETT) Yes. Member Palmer, the good faith effort is there. You know, it's more than the letter of intent and the MOU, you know, two documents. It's more than my word against somebody else's word. I think that the testimony that we give shows the work that we've done over the last six months in terms of looking at the pipeline, getting quotations, looking at two routes, mapping that out, starting to work on the easements, looking at the quality of the effluent coming out of the plant from Brown and Caldwell who is designing it, looking at the treatment we would have to do on our site versus the treatment at the city site. All of that testifies to our intention and the good faith effort that we want to continue to use to get to that definitive agreement.

MEMBER PALMER: Just two other questions, Mr. Chairman, if I may.

Q. (BY MEMBER PALMER) The key suppliers are headquartered in the United States according to the information that you provided; is that correct? Key suppliers of component parts of the project?

A. (BY MR. BARTLETT) Quite a few key suppliers. Definitely there are some particular components that are made by foreign corporations, but all of those, almost all

of those businesses look at the opportunity in the United States as the real growth area for their business for utility-scale solar plants. So everyone that I have talked to is looking at moving a factory into the United States, and quite a few of them already have.

For example, Schott, one of the biggest manufacturers of these precision vacuum tubes or the collector tubes, opened a factory in New Mexico. One of the greatest parabolic mirror manufacturers opened a factory, I believe it's in Pennsylvania. So there's economic benefits to have those local suppliers.

Q. During the public input this morning, a gentleman was concerned about the deterioration of a dirt roadway that was a potential access for construction and the operation of the facility. You indicated during your testimony that that road wouldn't be used, that there would be another primary road.

That road that you cited, that's a paved road?

A. (BY MR. BARTLETT) That's correct. We need a second access road for OSHA requirements and, you know, emergencies.

Q. And that road is maintained by the county?

A. (BY MR. LaROW) Yes, it is.

Q. And would you be amenable to any agreements with the county regarding deterioration of that road and their

expense to improve that roadway to accommodate that traffic or --

A. (BY MR. LaROW) We haven't had those discussions with the county yet. We're assuming that that's some of the things that we'll get into when we get into the next stages of permitting that Mr. Walker spoke about.

Q. What is that route number?

A. (BY MR. LaROW) It's Stockton Hill Road. I'm not sure what the route number is.

CHMN. FOREMAN: Antares Road is the road.

MR. BARTLETT: Antares Road is the dirt road to the east of the site, but we're talking about --

Q. (BY MEMBER PALMER) You're talking about using a paved road that's over -- Stockton.

A. (BY MR. LaROW) Correct.

A. (BY MR. BARTLETT) And one thing the county has recognized is that a project like ours doesn't put a great demand on the county services, for example, compared to a residential development that has lots of homes and needs.

Q. And the county is probably gleeful about the revenue stream.

A. (BY MR. BARTLETT) I would imagine so.

MEMBER PALMER: Thank you.

CHMN. FOREMAN: Member Houtz.

EXAMINATION

Q. (BY MEMBER HOUTZ) Mr. Bartlett, I'm looking at the -- well, we have it up. The area in blue there is the proposed site of the plant. What is the status of land ownership there right now?

A. (BY MR. BARTLETT) I believe Mr. LaRow will cover that in his summary. Most of that is owned by one company. I think it's -- I think we're saying seven-eighths of the entire --

A. (BY MR. LaROW) Are you talking about the gen-tie line?

Q. No. The plant site.

A. (BY MR. BARTLETT) The project site.

Q. The project site.

A. (BY MR. LaROW) The project site, it's a total of about six-and-a-half square miles in blue, and we have options on all except for about --

A. (BY MR. BARTLETT) Six 40-acre parcels.

Q. And you currently have options on that from one of the Rhodes developments or whatever it is?

A. (BY MR. LaROW) Rhodes and others.

A. (BY MR. BARTLETT) It's all private.

Q. And most of this land is within the Rhodes development plan that was approved for the water analysis,

but not all of this land was?

A. (BY MR. LaROW) Correct.

Q. If I remember from reading the addendum, there's a pro rata analysis there?

A. (BY MR. LaROW) Correct.

Q. Is any of this land BLM or State Land Department land?

A. (BY MR. LaROW) We cross BLM in two locations. One location -- we've got the checkerboard nature of a good part of the land up here. Right about here, I think, we cross BLM on a checkerboard, butterfly crossing.

Then you'll see this strange part of the transmission line corridor right here, which is our second crossing of BLM. Again, we're looking at a butterfly crossing for the transmission line.

Q. So there's no State Land Department lands, just BLM land?

A. (BY MR. LaROW) BLM in those two locations, and then the private land for everything else. But then once we get on this second gen-tie line, the vast majority of that line is BLM land adjacent to the yellow here, which is the BLM corridor.

Q. It shouldn't be too hard if they've already declared it a corridor.

A. (BY MR. LaROW) We're hoping.

Q. This isn't really a question, but along the lines of what Member Palmer has suggested, I would like the Applicant to look at the time frame they think it would be that they need to negotiate with the city for the effluent. Because what is clicking around in my head is a series of triggers. One for the CEC effectiveness is based on a trigger for negotiations of an agreement with the county -- or with the city on the effluent. And if that doesn't come to fruition, some kind of off ramp. And a ramp up on the use of effluent on a stage basis based on the city being able to deliver effluent, and in the interim the CEC stating how much groundwater could be used in that interim ramp-up period.

So I just throw that out for you guys to think about between now and tomorrow?

A. (BY MR. BARTLETT) Yeah. We have -- you know, the situation is that we have to negotiate with the city for this effluent. Technically, as of yet, they can't sell it. As Mayor Salem testified, there is a policy and pricing guidelines that has been approved by the municipal utilities commission, gone to the city council, and they're starting to discuss it there. So there are a series of steps that have to happen both on the city side as well as ours.

But again, I am comfortable with the good faith

effort that we have to get to that point where we can have a definitive agreement.

Q. And I'm looking for a reasonable time frame trigger for all of that to happen.

A. (BY MR. BARTLETT) I understand. Thank you.

CHMN. FOREMAN: I have a couple of questions.

EXAMINATION

Q. (BY CHMN. FOREMAN) On Page 8 of the application, HVS-1, there is a reference to an auxiliary steam boiler burning either fossil fuel or biofuel in order to provide steam as needed for the CSP plant.

I note that there's no similar request for the PV option. Can somebody help me understand why you need a backup? Why you need a backup biofuel or fossil fuel plant for the CSP?

A. (BY MR. LaROW) For the CSP, what we do is with the steam turbine, when that's off at night, we're basically running steam through it to maintain the temperature and maintain pressure in the condenser. So that's that auxiliary boiler there is producing that steam.

And what we're looking at with that is our base fuel is light heating oil. One of the options is

Kingman -- the Mohave County has approved a general plan or a general plan amendment, I believe, for a biofuel plant on 66 at about the intersection of Antares, in that area, which if we can use biofuel that would be a nice option.

The other option for powering that auxiliary boiler would be natural gas. And one of the things that we're looking at doing is trying to collocate a natural gas pipeline along with our effluent pipeline, because we believe natural gas would be a more economical fuel.

Q. Well, a fossil fuel would include coal.

A. (BY MR. LaROW) No. Coal is not under consideration.

Q. Okay. I note on Page 17 that you talk about using -- non-solar fuel utilized. You say approximately -- I think my notes indicate two-thirds of the expected fossil fuel use would be to generate electricity during peak demand.

It sounds to me like you're wanting to use the fossil fuel generator as a supplement to the CSP.

A. (BY MR. LaROW) That would be -- there's two other uses -- well, three other uses. Two main uses that we would have for the fossil fuel besides that auxiliary boiler and the steam maintenance heating.

One of those is freeze protection for our heat

transfer fluid. That fluid freezes at about 57 degrees Fahrenheit. So if you have cold nights like we're having now, what you do is you run -- you burn some fossil fuel, other fuel, in order to maintain the temperature of the heat transfer fluid overnight.

The second use that we have is we have in the project 10 -- we call them -- I forget what the -- heat transfer heaters, or heat transfer fluid heaters. And the purpose of them is exactly as it says. If we have a number of cloudy days in a row, we can't store thermal energy in the molten salt storage system, one of the benefits of our project is that we can burn some fossil fuel. And we're saying the most we would burn would be up to 2 percent in order to provide on-peak energy to the utility that's buying the energy from us.

Q. So you're talking about using this backup generator, backup --

A. (BY MR. LaROW) Backup boilers.

Q. -- backup boilers, not just at a time when the system is cold and you're trying to keep it from freezing, you're talking about using it in the middle of the summertime when, let's say, a peak need in southern California is up; is that fair?

A. (BY MR. LaROW) Potentially. If a utility, the power purchasing utility needs on-peak power when we

wouldn't otherwise be able to generate because there's not sunlight, then we can burn some fossil fuel in order to do that. And I believe that's consistent with the other projects.

Q. Well, I'm curious why, then, you didn't put that as part of your PV proposal?

A. (BY MR. LaROW) Because the PV has -- what we need in order to do that is those boilers really only create heat, they heat the heat transfer fluid up, and then that goes to make the steam. Our PV project has no opportunity for that.

Q. Yeah. And there's no steam component of PV.

A. (BY MR. LaROW) Right. So we have no -- and so there's no place to burn fossil fuel and make electricity.

Q. And no opportunity to take advantage of an already existing turbine?

A. (BY MR. LaROW) Well, we wouldn't have the turbine with the PV plant.

Q. Correct. You would with the CSP plant.

A. (BY MR. LaROW) Correct, yes.

Q. I'm a little -- so we're talking about your proposed non-solar fuel used here. So we're talking about our biofuel, which what is our biofuel going to -- what are the potentials for our biofuel?

A. (BY MR. LaROW) There's a proposed biofuel plant

right off of 66, just north of our project about 25 miles. Or south, I'm sorry, south of our project 25 miles. And if that plant is built, then we have the opportunity to purchase biofuel from that as opposed to purchasing light heating oil, for example, as a supplementary fuel.

Q. What would be the air pollution indications of using that?

A. (BY MR. LaROW) We're burning so little that we have a minor permit that we will be applying for.

Q. Okay. In your proposed CEC, that would be HVS-23, on, if I remember correctly, Page 2, Line 21, you refer to biofuel, light fuel oil, or natural gas co-firing. And that's what we're talking about here?

A. (BY MR. LaROW) Yes.

Q. And by co-firing you mean using not just as a way to keep the system warm, but as a supplement to the system that's running?

A. (BY MR. LaROW) Yes. To generate up to 1.5, 2 percent of the total output of the project by that fuel.

CHMN. FOREMAN: I think those are the questions that I have. Any other questions?

MEMBER YOULE: Just one.

CHMN. FOREMAN: Member Youle.

FURTHER EXAMINATION

Q. (BY MEMBER YOULE) Following up on the Chairman's question, is there anyplace in this draft CEC that references the 2 percent limit on the co-firing with fossil?

A. (BY MR. LaROW) No, there is not.

A. (BY MR. BARTLETT) The 2 percent limit comes from -- I'm not sure about other states, but California has a 2 percent limit to be certified as a renewable energy plant. And we went through a pre-certification there and that requires no more than a 2 percent, so we've just stuck with that in our design.

CHMN. FOREMAN: You may want to start working on the language, drafting the language for that.

Member Wong.

EXAMINATION

Q. (BY MEMBER WONG) Mr. Bartlett, you have testified that you have experience in a number of electric generation plants, correct?

A. (BY MR. BARTLETT) Yes.

Q. Including solar and renewables. What is the intent with this particular project? Is it to develop and

keep it in your portfolio and operate it, or is it a plan to develop and sell it to an investor group? What is the plan? Are you going to operate it and keep it, or would you explain that?

A. (BY MR. BARTLETT) Well, we get into development with the plan of developing, building, owning, and operating. However, in this current environment, I'll give an example of a likely scenario. The new changes in the tax incentives at the end of 2008 allow utilities for the first time to participate as tax equity investors in a project like this, and, therefore, they can participate.

And the RFPs that have come out, although none of the Arizona utilities have issued RFPs for big solar plants above, I think, 50 megawatts in 2009, all of the other ones that we have submitted bids to have interest by the utility in eventually becoming an owner. So we bid on those with options for the utility to take over ownership maybe in 5 years or 10 years.

So we don't have a plan. I can't look into the future and say what is going to happen because you have got investors with their own objectives, you have got the utilities with their own internal objectives, and some of the utilities we've talked to do not think they can take over ownership of a plant like this.

So we are on our development plan to select our

EPC contractor to build the plant, and then we're also soliciting bids and negotiating with O&M contractors, operations and maintenance contractors, who would actually operate the plant. But so many things could happen between now and 2013, 2014 when this plant comes on line, we can't predict the eventual, you know, the owner of this plant in 10 years.

Q. I'm not sure what I have heard. Is it the intent presently is to -- your company to own the plant and operate it either directly operational or contract out the operations. You said that you don't know what could happen in the future based on your investors and other participants in the project. That this could be -- the ownership could transfer in the future.

A. (BY MR. BARTLETT) That's correct. It could be a term of our financing. It could be terms in our PPA. It could come up independently of that.

But as we develop the plant, we have to develop the full plant. So we have to consider construction, we have to consider operation as if we're owning and operating it.

Q. And the successors in interest of the plant would then be subject to all conditions if this CEC is granted. Is that your understanding?

A. (BY MR. BARTLETT) Yes.

MEMBER WONG: Very good. Thank you.

CHMN. FOREMAN: Just an academic question. Can you give me the square footage of PV surface area per megawatt of power generated and surface area of a CSP trough per megawatt generated?

MR. LaROW: Can we get that to you a little later?

CHMN. FOREMAN: You don't have it off the top of your head?

MEMBER PALMER: I think I can get it for you, Mr. Chairman. In prior testimony it was about 8 acres.

CHMN. FOREMAN: That's the area --

MEMBER PALMER: 8 acres per megawatt.

CHMN. FOREMAN: If I remember correctly, that dealt with the land on which the reflectors -- or the collectors were placed.

MEMBER PALMER: Right, correct.

CHMN. FOREMAN: And not on the actual square footage of the collectors themselves, which is -- it appeared to me that there are some disparities with regard to the density of collectors on the land, and so --

MEMBER PALMER: This was CSP technology, though.

CHMN. FOREMAN: I was trying to figure that out. So if somebody could get an estimate of that to me, I would really appreciate it.

MR. BARTLETT: In general, Mr. Chairman, the PV technology requires more land than CSP, but there are various PV technologies that we would have to consider. You know, this thin film technology is this number. There's different PV technologies.

CHMN. FOREMAN: Now, you have got thin film technology and crystalline silicon technology, and then you've got the single axis trackers and the fixed tilt configurations. So it seemed to me that there would probably be a need, certainly with the single axis trackers, to have some sort of access road available to fix the collector if it got stuck.

And so I'm just trying to get a -- it seems to me that you would have different land areas that would be needed per megawatt for different technologies. And so I thought it might be helpful, at least for my thinking, to get something that would just make it a function of the surface area of the collector.

All right. Very good. Let's move -- well, I'll tell you what. Let's take a break right now and we'll take a 15-minute break. We'll come back at five minutes until 3:00 and we'll start with the testimony of Mr. LaRow.

(A recess was taken from 2:39 p.m. to 2:54 p.m.)

CHMN. FOREMAN: Back on the record.

Now, Counsel, you may resume your direct examination.

MR. CAMPBELL: Thank you, Mr. Chairman. At this point I'm going to direct my questions to Mr. LaRow. The other half of this panel.

DIRECT EXAMINATION (Cont'd)

Q. (BY MR. CAMPBELL) Mr. LaRow, did you prepare what's been marked for identification as HVS Exhibit No. 6, the prefiled direct testimony of Michael LaRow?

A. (BY MR. LaROW) Yes, I did.

Q. Do you adopt that testimony as your testimony in this case?

A. (BY MR. LaROW) Yes, I do.

Q. I would like to take a few minutes and have you summarize at least the major points of that testimony. First of all, provide the Siting Committee with some background about your education and professional history.

A. (BY MR. LaROW) I'm the environmental director for the Hualapai Valley Solar project. I got my master's and bachelor's degrees in electrical engineering from M.I.T.

For the last 24 years, I've been working in the

energy industry. I have worked on development of projects, hydroelectric, gas-fired projects, coal-fired projects, and now this solar project. I have also worked on transmission lines ranging in voltage from 115kV to 345kV, now 500kV, and lengths of two miles up to about 40 miles.

Q. Mr. LaRow, identify the topics that you'll cover in your summary today.

A. (BY MR. LaROW) All right. In this summary I just -- I'll quickly go over a description of the technology, which is what, for the most part, I think you folks are familiar with from earlier hearings. Then I'll show a DVD that will give you a better overview of what our project looks like or will look like on the ground in its environmental context. And finally, I'll talk about wet and dry cooling and why this project cannot use those.

Q. Mr. LaRow, why don't you start with your first point and provide a description of the CSP project technology.

A. (BY MR. LaROW) As I said, I'll go through a brief description of each of the major components of the CSP project, then we'll go to the DVD. And as we go through that, if you want to stop at any time and talk about things in more detail when it's up on the screen, we'll do that.

This is a site plan of our overall project, with the solar field taking up the vast majority of the area, the power block in the middle where the power block has everything except for the mirrors, basically. The transmission line, the gen-tie line will come out the north. This area down here is where we're talking about having our administration buildings, the visitors center, those kinds of things.

We're using the parabolic trough technology, which you have seen. We'll go through and in the movie you'll see the CSP plant on the ground, unlike the schematic which I think you're probably used to seeing.

We'll talk about the four main loops that the CSP project has. This loop where we generate heat in the mirrors, transfer that heat to the water and make steam for the steam loop. The steam loop where we run the steam through the turbine, then come down, condense it, and then run it again. A third loop where we take some of the heat from the heat transfer fluid in the mirrors and transfer that to our hot and our cold storage tanks for the thermal salt storage system, and then the fourth loop being the cooling water loop here.

And now we'll go to the DVD.

Q. It may take just a minute to load the DVD. This DVD will both show the technology and also will serve

similar to a virtual tour just so you can see the area in addition to the pictures that you have.

A. (BY MR. LaROW) The DVD will start. It will set the context for Arizona, then Mohave County, then in relationship to Kingman so that you can see where you are on the ground. It will give us some views of the project from the nearby general area. It will show us the parabolic troughs, generally how they work. It will then go into the different components of the power block.

So we're zeroing in on Kingman here now, or Mohave County with Kingman. Here is our project up here. We'll come in and we'll see Kingman down in here where we are now; Stockton Hill Road coming up this way.

This is the airport here. As we come up, here's the wastewater treatment plant. Looking up at the project up here from Kingman. We're following Stockton Hill Road, basically.

Then we've got Red Lake here, Stockton Hill Road, Antares Road, which we talked about, the whole Hualapai Valley. Our project in here relative to the Red Lake.

Okay. Here is our interconnect substation. Our access road from the paved road, Stockton Hill on the west here, about three-and-a-half miles to the project site here. A secondary access road off to Antares.

All right. Now, we've paused the DVD here for a

second just to give you a better sense of the context. Our project is here with the power block in the center, transmission line coming to the north and then heading east over to our interconnect switchyard here.

This is a short segment of the MPP transmission line, the Mead-Phoenix line right here, heading up this way and then across and then down south. We've got the Moenkopi line coming in from the east here and cutting across and intersecting up here, which is about where our second corridor would terminate.

Okay, go ahead.

We've got up to the north here our storm water ponds and evaporation ponds up here. This again is the power block with the thermal energy storage area down to the south. We've got eight solar subfields, and each one of these has its own set of supply and return, basically, for the heat transfer fluid.

Again, the storm water ponds, evaporation ponds.

This is -- we'll have a drainage system that will both direct off-site water around the plant and then direct on-site water to common points.

Now we're just looking at the plant from different views to give you a sense for what it would look like in that setting, looking -- again, the transmission line is coming in there, the transmission line heading off

to the north there, and the transmission line here, access road there.

Now we're going to come in and take a look at how the heat capture system will work for this project. This distance here is about 1,000 feet. The heat transfer fluid will run 1,000 feet down one set of mirrors and then 1,000 feet back the other set of mirrors, and in that time period gaining a couple of hundred degrees of heat Fahrenheit.

We've got our solar -- our collector here in the focal point of the mirrors.

And all of these details that the engineers think are very important that they include in the video.

The different types of pylons that we have along the way. Then we'll see how the mirrors will follow the sun just as it goes from east to west.

CHMN. FOREMAN: So the arrays are north and south?

MR. LaROW: Correct. So over the course of the day, this is what it would look like if you could speed up the mirrors.

And again, the HTF flows along the focal point, comes and turns and goes down a second set. It doesn't show the connection between the sets here.

Now we're going to take a look at some views of

the power block, and then the video will go through the different subcomponents of the project and label a number of the different features.

Again, here is our thermal energy storage up here. Turbine generator is here. Okay. This is the steam water cycle, the turbine generator, the heat transfer, the cooling towers. Here is the whole HTF system here for pumping and storage. And this is the water treatment system is these red buildings. Thermal energy storage again, the hot and the cold tanks with the heat exchanger in between.

Our different switchyards. The main switchyard for the gen-tie line, and then different sub-yards through the area where we need significant amounts of power. These are just the piping out to the solar subfields for the HTF fluid.

CHMN. FOREMAN: Can we stop there a moment? It seemed to me in one of the -- at least one of the prior CSPs that we had the flow of the heat transfer fluid was by the molten salt tanks, then to the water heat exchange system, and then, of course, on to the turbines.

It looks like what you have got set up is a system where there's kind of a T-intersection where the heat transfer fluid is either going to go towards the portion of the system where you have got your exchanger

with the water and your steam side, or it's going to go to the molten salt side. And those two are not going to be interconnected; is that true? And is that different from the other systems that we have seen so far?

MR. LaROW: Chairman, are you talking about the schematic that's Slide 7 in the presentation possibly?

CHMN. FOREMAN: I believe the answer is yes.

MR. LaROW: Okay. In this schematic -- and I don't know if we -- Kenda, can you stop here? Okay. No. This is perfect. I think for --

CHMN. FOREMAN: I was reminded of it by your going through the system and showing that the molten salt fields, which I think are those white tanks to the left --

MR. LaROW: Correct.

CHMN. FOREMAN: -- those are on the opposite side of the intake -- I'm neither able to think or talk that fast -- but on the opposite side of the intake for the HTF fluid for the other part of the system so that you don't have the heat transfer fluid going to the water heat exchanger and then to the molten salt. You don't have it going by the molten salt before you go to the water. You have basically a separate -- a divide and a separate set of pipes; is that true?

MR. LaROW: And I think if I'm understanding your question, we have this area here is where the pumping

system is for the heat transfer fluid. And because of the way it's piped and valved, we can either take hot fluid from the solar field and send hot fluid here through this heat exchange system which makes steam to generate the electricity, or we can send it over to this side where it will exchange in these different heat exchangers and heat the thermal storage, the molten salt from cold to hot, or we can do a mixture of the two of those if we want to.

CHMN. FOREMAN: Does piping it and valving it that way, to use your phrase, does that reduce the amount of fluid that you have available for your heat transfer system to water?

MR. LaROW: Yes. If -- well, the solar field, depending on the time of year and how far or how close the sun is overhead, how much direct normal insolation you're receiving will determine how much total energy that solar field captures. And at some points, you know, June 21 we may capture more than -- we'll probably capture more than 340 megawatts.

CHMN. FOREMAN: More than you can use?

MR. LaROW: Potentially. So if we capture it, depending on how many mirrors there are there. So what we would do in that case is store some of that energy, the extra energy, in the thermal energy storage system.

CHMN. FOREMAN: But you're planning on doing that

every day, aren't you? I mean, that's the whole reason to have the system there?

MR. LaROW: Yes.

CHMN. FOREMAN: So you can continue to generate electricity after the sun goes down?

MR. LaROW: Yes.

MR. BARTLETT: Mr. Chairman, I think what you are asking, the heat transfer fluid, we can either route it this way to make steam and electricity right now, or we can route it this way to store it for later. And that's an operational decision we can make on a day-by-day basis.

CHMN. FOREMAN: But is that either/or approach different than the other systems that we have seen, which I understood to be you run it through heat transfer to water and then back through heat transfer to salt. So you have got the same heat transfer -- you have got just one loop with some subloops in it. And it looks to me like you've got two separate loops here.

MR. LaROW: Right. We do have two loops. And as Greg says, on an operational basis you can determine how much of that energy you send to the thermal energy storage or to the energy -- the electric generation side. We can generate, if we want to, 200 megawatts and send 140 megawatts of heat energy over to thermal storage, 200 megawatts of electricity.

And I believe the other projects would be designed the same way. I believe they use basically the same schematic, which gives you that flexibility. I don't think any -- I don't think that they operate in a series type of an arrangement where it has to go through both heat exchangers.

CHMN. FOREMAN: Well, it's interesting you say it, because I just happen to have the schematics from the other three.

MR. LaROW: Okay.

CHMN. FOREMAN: And it was my impression from reading them that it was not an either/or. That it was a different way. And that's the reason that I asked the question.

MR. LaROW: If the others are not, ours gives us that flexibility.

CHMN. FOREMAN: Does it reduce your efficiency, though? Because if you have got 340 megawatts where the heat is coming in, or potential heat coming in, and you're sending 140 over here to melt salt and 200 to make electricity, obviously, you have only got 200 megawatts of electricity that are coming out at that time rather than 340.

MR. LaROW: Right. But then we have the other 140 megawatts to use, for example, in Arizona here at 7:00

or 8:00 at night when air conditioners are still blasting away, but the sun -- you know, we've only got 100 megawatts of solar energy or less at that point. So then we have that extra 140 that we stored earlier in the day when it was less useful.

CHMN. FOREMAN: If you had it in series, though, wouldn't you be able to use the complete 340 out of your -- at the beginning of your loop when you heat water, and then take whatever residual heat you had in after you heated water and heat salt with it and then pump it back into the field?

MR. LaROW: Yeah. I think to be most efficient you would take all of that energy out of the molten salt that you can get in this heat exchanger here to make the steam.

CHMN. FOREMAN: You mean the heat transfer fluid rather than molten salt?

MR. LaROW: Yes. I'm sorry, yes. With the molten salt.

CHMN. FOREMAN: Because you had me totally confused there.

MR. LaROW: And then if you do have extra heat -- for example, if you do have extra heat that you have generated in your solar field, more than the 340 here or more than you want to generate, whichever that amount is

at that point in time, then you just send the extra heat transfer fluid over to the molten salt.

CHMN. FOREMAN: Can you do that with your system?

MR. LaROW: Yes, yes.

CHMN. FOREMAN: Because you want that heat transfer system going back out to the solar field at a relatively low temperature, don't you, because that increases your efficiency?

MR. LaROW: Correct. Exactly, yes. You want to take as much heat out of that as you can.

CHMN. FOREMAN: Okay. All right.

MEMBER RASMUSSEN: Mr. Chairman.

CHMN. FOREMAN: Member Rasmussen.

MEMBER RASMUSSEN: How long can you store the heat in the molten salt? Is it a 24-hour system, or is it more, more than daily, or is it --

MR. LaROW: It's for a couple of days.

MEMBER RASMUSSEN: A couple of days. Thank you.

MR. LaROW: Here we are at the steam water cycle. Again, here is our heat transfer. Okay. This is the steam turbine, this is the heat transfer. This is our condenser, our cooling towers. Again, the solar steam generator which generates the steam from the heat transfer fluid. Cooling towers, the chemical feed for the cooling towers to maintain the water quality.

Our water treatment system, which consists of a few different chemicals that we add in order to condition the water. Again, you know, just more of the different kinds of chemicals, sulfuric acid to lower pH.

We've got our service water tank of the water that we have treated. We've got brine buffer tank and sludge treatment for the contaminants that we're removing. Again, the surface water tank.

Here is the pretreatment where we store the water from the effluent or from the wells. Our reverse osmosis, which is our first stage of treatment. These here are the tanks for the mirror washing, the water tank here which would feed mirror washing. Different, again, water neutralization tank.

Our water treatment building, which would control the whole system. And then when we do generate hazardous wastes, we would store them in this building right here.

I'll go and just name our switchyards for us again. This is our main switchyard for stepping up from generation voltage to transmission voltage; then different sets of switch gear around the plant where we have major uses.

Again, just an overview of the power plant looking first from the north, and then we'll spin around and look from the south, I believe.

Our transmission line heading out the north here, and again, the transmission line heading out the north there. Thermal energy storage, the two sets of tanks for every pair.

Now we're coming into the access road from Stockton Hill Road. Our visitors center, our admin building, the solar field, the southwest corner of the solar field right up here.

Now we'll come along the south side of the plant along our -- this access road will be controlled. And then turn up here and look into the power block of the plant, fly over that, and then come out the transmission line at the north end.

Our transmission line again heading up. This is our butterfly crossing of the BLM land there over to our interconnect switchyard. And off to the left here pretty soon you'll see the Mead-Phoenix -- or the Mead-Phoenix on the left and the Mead-Liberty transmission lines on the right. Again, looking south back towards Kingman.

And that's the movie.

MEMBER HOUTZ: It's not Avatar.

MR. BARTLETT: You don't have your 3-D glasses on like I do.

Q. (BY MR. CAMPBELL) Mr. LaRow, now turn to the final topic of your summary and talk about wet cooling and

dry cooling and hybrid cooling and how those options affect this particular project.

A. (BY MR. LaROW) Okay. I'll just go over briefly how each of these different cooling systems works to make sure we're on the same page there. Then I'll explain why this project really needs to be wet cooled in order to be competitive in this competitive market we're in to sell the renewable energy.

We have steam that exits the low pressure side of the turbine here and goes through a condenser, gets condensed back to water, and continues around the steam loop. What happens in order to condense this steam, we pump relatively cool water in one side of the condenser, it gets heated up as it condenses to steam and comes out the other end.

And the way this evaporative cooling system works that we're proposing is it's basically a large open box here, water in the bottom, a fan at the top. The fan draws the air in from the bottom, exhausts it out the top, and at the same time you've got the water coming in and being sprayed down against the flow of the fan as little droplets. And the primary cooling takes place as a small amount of that water in the droplets gets evaporated. Just like your body sweats and as that sweat evaporates, you cool down.

And this is a very efficient way to cool this water so that we can continue to use this water in the recirculating system here. Where we lose the water in this system is amounts of water that get evaporated from these droplets get exhausted out into the atmosphere as 100 humidity air, basically.

Now I'll talk about dry cooling and then the different -- how they work, the different penalties, and the wet cooling or the hybrid cooling, also.

Here is the schematic of a dry cooling system, which is really analogous to the radiator in your car. You have the steam coming off the low pressure side of the turbine and it goes into basically a huge radiator. You have got a fan, a number of big fans blowing air up across this radiator as the steam flows through this path. It first condenses to water, cools down so it can be -- it can go through the steam cycle again.

Now a hybrid system. A hybrid system in the simplest terms is just really a combination of a wet cooling tower here and a dry cooling tower or an air-cooled condenser here. And the designers decide based on the site specific conditions and the goal that you're looking to achieve with this hybrid system how big each of these two are relative to how big they would be if they were used as the only system for cooling the plant.

Now, the problems that you have, and I'll focus first on dry cooling but it also in most senses applies to hybrid cooling, especially when your goal is saving water. And in this scenario, the reason to use hybrid cooling would be to save water.

In dry cooling, there is a study that was done, and it's referenced in HVS-21, by the Department of Energy and provided to the U.S. Congress in order to look at what are the options for minimizing water use in concentrating solar projects. Because this is a big deal, especially if the country wants to use more and more renewable energy, and the concentrating solar is a very good quality renewable energy. It's unlike wind because you have the thermal storage. You have the thermal inertia with all of the heat transfer fluid. You can put out a pretty good, steady supply of energy when you need it, unlike, like I said, wind or even to some degree photovoltaics.

And the other very beneficial thing, as you know about the solar energy, is the sun is shining when you need the energy. And *when* you need the energy most, normally the sun is shining the hottest in the southwest here.

Can you go back a second?

The penalties that you have for the dry cooling, because of the sheer amount of air you need to use to cool

and condense the steam, a dry cooled system costs two to three times as much as a wet cooled system from a pure capital cost standpoint. Because you're moving so much air with that dry cooled system, you have a much higher level of what is called parasitic loads. And parasitic loads is the electricity that you consume in the power plant in order to produce electricity.

In our case, we consume a good amount of electricity on this project just to pump that heat transfer fluid around those miles and miles of pipes to get through the mirrors and to the far end of the project.

But when you have -- in your cooling system it's much -- you use much less energy to pump the water in a wet cooled system than you use to blow the fans or operate the fans in a dry cooled system. So for our project, we consume less energy internally; therefore, we have more to provide to the grid and to the end user.

And then what I'll show is a couple of graphs next that just show the impacts of the efficiency that the wet cooled -- or that the dry cooled system has compared to the wet cooled system.

What this is, on the Y-axis you have the output of a project. And this is a theoretical project in the southwest, and this again comes from HVS-21, that Department of Energy study.

On the X-axis you have ambient temperature. And these different dots represent about 3,400 hourly values of output, net output versus the ambient temperature. And you'll notice that up here you have basically no variation in the output from, you know, 60 degrees up to 113 degrees, I believe, is the hottest temperature up here. You get 280 megawatts out of that project no matter what the outside ambient air temperature is.

Next slide. Now, this is that same project only with the wet cooled system replaced by a dry cooled system for the same 3,400 data points of input, solar energy, temperature. And what you see here is that from, you know, 60 degrees here, up until you know, 80 you get a slight decrease, then you decrease more quickly as you get to 100 degrees, and then you do a nosedive once you hit 100 degrees down to this point, where at 113 degrees in this scenario you're generating 165 megawatts for the dry cooled plant, where the wet cooled plant would be generating 280 megawatts. And when you have these high temperatures, that's when you have the highest electric demand normally, and that's when you need these projects to be producing the most.

When you put all of these three factors together, you end up with, again, according to this Department of Energy report, a 7 to 9 percent cost penalty on the cost

of the energy that you're producing, which means that when we go to a utility to bid our project into this pool of everybody else who is bidding for the renewable energy PPAs, if we had a dry cooled plant, we would have to raise the price that we're bidding per megawatt hour by 7 to 9 percent just to cover the dry cooled cost in terms of extra capital cost, decreased efficiencies, and increased parasitic loads. And from our perspective and our experience, that just makes this project uncompetitive and we would not able to proceed with a dry cooled system. And that's the end.

Q. Mr. LaRow, does that complete the summary of your testimony?

A. (BY MR. LaROW) Yes, it does.

MR. CAMPBELL: Mr. LaRow has completed his summary and is available for any more questions that you might have.

CHMN. FOREMAN: Member Houtz.

FURTHER EXAMINATION

Q. (BY MEMBER HOUTZ) Mr. LaRow, you talk about the higher capital costs for dry cooling and you said two to three times greater?

A. (BY MR. LaROW) Yes.

Q. Is that the same for the hybrid or is it even higher?

A. (BY MR. LaROW) No. Actually, it depends. Again, there's so much flexibility in how you design the hybrid system. In this, in HVS-21 again, for that same plant they looked at a hybrid plant, and the cost was not as high because they tuned it so that it consumed, I think it was -- I think it saved 40 percent of the water, not 100 percent, basically, as dry cooling does. But that plant costs less because of how it was tuned.

Q. To what extent did you do economic studies on the hybrid system? As you may know, my director is a big proponent of hybrid cooling, if feasible. And I know you're citing the DOE study. Did you do your own cost analysis of a hybrid system?

A. (BY MR. LaROW) We did not do a specific cost analysis for our project. We relied on the other ones that are out there, and there's a number of them out there. And they all come to basically the same conclusion for, you know, a project, especially a solar project. Combined cycle fossil plants are a different animal because they operate around the clock. They have a much higher temperature that they operate at for the steam input to the turbine. But solar projects, there is a few studies that really give you a good answer.

Q. If this was not a -- I like to call these type of solar plants a solar peaking plant with the idea that your storage batteries are going to be used in the peak hours after the sun is starting to set and setting.

If this was strictly a base-load plant, would the dry cooling be more cost effective?

A. (BY MR. LaROW) We would not have as much of a penalty because more of your generation would be in the cooler hours in the night if it operated 24 hours a day.

Q. I mean, as a solar, just a base plant during the peak hours and not having a peaking capacity after. Just running when it's running.

A. (BY MR. LaROW) Oh, the amount of water that you consume is related to both outside temperature and the amount of energy that you produce. So I'm not sure if I'm answering your question.

A. (BY MR. BARTLETT) If I could add to that, Member Houtz. There are no utility-scale solar thermal plants today with dry cooling for the reasons that we mentioned, or hybrid. There are dry cooled base-load plants like you're mentioning where they run 24 hours a day, and they can kind of average out those penalties over that operational period.

Q. So what you're saying is solar at this point and using concentrated solar is not feasible for a base load.

It's only feasible as part of a peaking plant?

A. (BY MR. LaROW) Correct, correct. You know, my definition of base load is a large coal plant, a nuclear plant that runs around the clock at the same base level. You know, we're nowhere near that. We come on when the sun comes up. And, you know, to the degree we don't use thermal storage, we go off when the sun goes down.

Q. So far this Committee has had -- this is our fourth solar plant proposal, and they've all had a thermal battery. Do you know of any proposals moving forward in the west that do not have a thermal battery?

A. (BY MR. BARTLETT) Well, the best example, I guess, is Nevada Solar One that is operating today but does not have a thermal energy storage system.

Q. That's not very large, though. It's like 40?

A. (BY MR. BARTLETT) I think it's 64, and there's -- I have heard people talk about maybe expanding that.

But really what separates the solar thermal technology from wind and PV technology is the ability to store that energy. From a utility perspective, that's critically important, you know, because a PV plant, a cloud comes by for just five seconds and the panels don't generate electricity for those five seconds. It's very difficult from the utility standpoint to handle that on

the grid where they have a big generator that drops out on and off, you know, all throughout the day.

And with the solar thermal you have got that solar inertia. So if a cloud comes by and blocks the sun for 10 seconds, it's a thermal process. You don't lose heat in five seconds. If you have a storm for four hours, you can draw from the thermal energy storage.

So from a utility perspective, solar thermal with storage is incredibly attractive, plus it's a thermal, it's a steam turbine, which is another thing that utilities are most familiar with.

Q. One last set of questions, and it's your water use for cleaning of the mirrors. You had it all lumped in together with your other uses, potable and dust control and such. What was it? 5 or 10 percent of the total use?

A. (BY MR. LaROW) The mirror washing is about 130 acre-feet a year.

Q. Would it be similar if you had photovoltaic in the same land mass?

A. (BY MR. LaROW) No. You don't have to clean photovoltaic as much as you do the concentrating solar.

Q. The dust doesn't do anything to those?

A. (BY MR. LaROW) It does decrease the efficiency, but not to the degree that it does with the solar thermal. So we're estimating about 30 acre-feet a year for the PV

option.

MEMBER HOUTZ: Thank you.

MR. BARTLETT: And Member Houtz, there is, I believe, a breakdown more detailed in the written -- in the prefiled testimony of the different usage.

CHMN. FOREMAN: All right. Now, before we let Mr. LaRow go, I wanted to poll the members of the Committee about taking a tour tomorrow. I wanted to get that decision made as quickly as possible.

Is there anybody who is interested in taking a tour tomorrow?

Member Wong. Anyone else?

(No response.)

MEMBER HOUTZ: Mr. Chairman, I have not gone on any of these tours. And particularly since the Commission Staff chided us for having tours, I don't think -- I personally don't think it's advisable to have tours anymore and rely simply on the tour. If someone wants to do a tour, you know, give them a map or something.

But I'm concerned about having the Applicant with a member in a vehicle of any type and having to have a court reporter go along in case there's some kind of testimony given. I just have problems with that.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Well, we took a tour, actually,

recently after that discussion with the Commission Staff, and we did it on the Nogales line. I thought the Chairman did an excellent job of coordinating that and trying to deal with the open meeting issues and it worked fine. So that, to me, can be solved, because we did it in that case.

And we can decide if we want to go out in this case based on whether we would gain any valuable information from a tour. So the open meeting issue I think was solved by the way the Chairman conducted the tour that we had in southern Arizona.

MEMBER YOULE: And Queen Creek.

MEMBER MUNDELL: And Queen Creek.

CHMN. FOREMAN: Well, I can go either way on this. And I'm not suggesting that any member of the Committee who is not inclined to go on the tour needs to go on the tour. But if Member Wong would like to go on a tour, I will go with Member Wong just to conduct the -- okay. All right. As I said, I'm willing to go either way. But if, Member Wong, if you're not --

MEMBER WONG: No, Mr. Chairman. I'll take a tour, a virtual tour.

CHMN. FOREMAN: All right. Then we'll rely on the virtual tour and we'll not --

MEMBER MUNDELL: Well, Mr. Chairman, can we see

the virtual tour and then maybe make a decision after that?

CHMN. FOREMAN: We did.

MEMBER MUNDELL: You saw it when I was gone.

MEMBER NOLAND: That was the movie.

MEMBER MUNDELL: Oh, that was the movie.

MEMBER RASMUSSEN: You blinked.

MEMBER HOUTZ: If you have a DVD, you can play it in your room.

MEMBER MUNDELL: I will.

I guess on a serious note, I was trying to understand what we would ascertain by an actual tour. The issue here seems to be water usage, and I'm not sure by taking a tour that will help us in reaching our decision on that issue. But if there's something that I missed that would be available to us by an actual tour, then I certainly want to be enlightened on it.

CHMN. FOREMAN: Not unless we do a lot of digging. Because of the location of this project, because of the photographs that we do have indicating no residences, no trees, no geographic viewscape problems, none of the other types of problems that have usually been the problems that we address in a tour, I personally did not think that the tour would be that valuable. On the other hand, I guess there's always some value to being

able to actually eyeball the place.

But as I said, I'm willing to go and be a part of conducting the tour if anyone wants to go. If Member Wong is the only one and he's not -- and he's willing to accept the material that's presented in the virtual tour, I'm happy to just accept the virtual tour and not go with this one.

MEMBER WONG: Mr. Chairman, I do have an issue that I would like to have addressed that it was pointed out that in near proximity to the project site is a lake bed; is that correct?

MR. LaROW: Correct.

MEMBER WONG: And would you address the issue of what is the flood potential in the region?

MR. LaROW: We've -- and Kenda, can you -- or maybe we can just look at the placemat. You'll see at the northwest corner of the blue area that depicts the solar field, you'll see that that's offset from the lake bed. What we've done is we've sited the solar plant entirely outside of the 100-year flood zone as defined by FEMA.

Does that answer the question.

MEMBER WONG: Yes, that answers the question. And so the elevation of that site has no history of flooding, or what is the history of flooding there?

MR. LaROW: What we've looked at is the 100-year

flood zone, which is a normal design criteria. So we will be outside of that 100-year flood zone with all of our facilities.

MEMBER WONG: And that meets what? What standards does that meet? Is that a federal standard or what -- how did you pick a 100-year versus a 500-year, for example.

MR. LaROW: I think 100 year is a standard design criteria. I'm not sure if it's codified or where it's codified. I can find that out, but I'm not sure right now.

CHMN. FOREMAN: To your knowledge when was the last time you could float a boat in Red Lake?

MR. LaROW: Good question.

MS. BENSUSAN: Last year.

MR. BARTLETT: Depends on how big the boat is.

MR. LaROW: Yeah. The lake, I have heard all different kinds of stories about how often there's water in that lake. Once every 10 years to once every year. I personally don't have a good feel for that.

CHMN. FOREMAN: Any other questions?

Member Noland.

MEMBER NOLAND: Mr. Chairman, Mr. LaRow, would you not have to apply for and -- I believe it was mentioned by the county manager -- obtain permits that

would deal with the floodplain?

MR. LaROW: Absolutely. Absolutely.

MEMBER NOLAND: Through the county?

MR. LaROW: Yes, ma'am.

MEMBER NOLAND: Okay, thank you.

CHMN. FOREMAN: And I assume that you would have the option to do some damming between where the -- for want of a better term -- put some sort of a levee between the lake and the project site if the county told you that you had to.

MR. LaROW: Yeah. If the county told us we had to, yes. We're on a naturally raised area. You know, you can kind of see the areas that are more white. And these are the areas where, when there is water, that's where it collects and then that's where it evaporates from.

This is called Truxton Wash. This is the main wash coming down Hualapai Valley into this dry lake bed here. You know, our access road will cross that, but what we'll probably be doing is looking at the road that in a 10 or even potentially a 20-year flood event would not be flooded out. If it's a 50-year event or 100-year event, then we would take -- we would just not use the road for those few hours, or we would come out the east side of the plant if we had to.

You know, and up here, you know, for anything

less than a 100-year flood, we wouldn't even notice it. And probably even more of that, because I think we're even 100 feet back from the 100-year flood flood line, I believe.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you, Mr. Chairman.

EXAMINATION

Q. (BY MEMBER MUNDELL) Could you quantify -- you said there was a 7 to 9 percent penalty using dry cooling over wet cooling. Do you have some dollar figures to quantify that?

A. (BY MR. LaROW) Well, there are -- let me see. For our particular project, no, because we did not look at it. But if you look at the total cost of our project, which is about $2 billion, and apply a 7 to 9 percent cost penalty on that, it's equivalent to raising the capital cost by 140 to 180 million.

Now, that's not really what happens, because what is embedded in that total cost penalty is, number one, the lost generation that you get by the higher parasitic loads, which is energy that you can't sell. Number two, the decreased efficiencies that you get because of the curve that I showed you, the fact that air cooling is

inherently less efficient and drastically tails off at the higher temperatures.

So those are embedded in that penalty, but they're not direct dollar numbers. They're numbers that is basically lost revenue.

Q. So the $10 million to build the pipeline is just insignificant compared to what your loss would be if you had to do the dry cooling versus --

A. (BY MR. LaROW) On that kind of comparison, yes.

Q. And then you talked about dry cooling. I mean, isn't there a gas dry cooling facility in southern Nevada?

A. (BY MR. BARTLETT) Yeah. At Nevada Solar One, if you know that CSP plant, nearby that is an El Dorado plant that's a, I believe natural gas, combined cycle, runs 24 hours a day, and it is dry cooled.

Q. Right. Because you talked about the Solar One. But as I said, there's also a gas dry cooling facility, and that runs 24 hours a day. So to Member Houtz's question, it's a base load plant then?

A. (BY MR. LaROW) A combined cycle is more of a -- much more of a base load plant than we would be.

But the other thing to remember -- two things to remember with the gas-fired combined cycle is a combined cycle gets about two-thirds of its energy from the primary firing of the gas for which there's no cooling required.

They basically have, you know, a jet engine burns gas, and the exhaust that comes out of that they then use to make steam to run a secondary turbine. You get about two-thirds of your energy out of that first stage. So you have no cooling associated with that. It's only the one-third of electricity in the second stage.

The other point to remember with the fossil fuel plants is the amount of energy that you can get out of the steam is dependent on the difference in temperature and pressure from the inlet of the steam to the outlet of the steam. The bigger that difference, the more energy you get out. The fossil plants provide a much higher inlet temperature for those turbines than we can do with our heat transfer fluid. We're limited to about 740 degrees. They're at 1,000 degrees plus. I'm not sure what the inlet temperature would be.

MEMBER MUNDELL: Thank you.

Thank you, Mr. Chairman.

CHMN. FOREMAN: Member Youle.

FURTHER EXAMINATION

Q. (BY MEMBER YOULE) Just a couple of questions regarding the pipeline. If you're planning on being operational at the plant in what, 2013 I believe it was,

do you foresee any difficulty or any hurdles that would get in the way of your construction and operation of the pipeline in time to coincide with start-up of the plant?

A. (BY MR. LaROW) Not if things go well with primarily acquiring the right-of-way for the pipeline.

Q. Have you started that process at all?

A. (BY MR. LaROW) Yes. We've identified routes. We've made our application with the county. What we want to do is use as much county right-of-way as we can, because that minimizes the number of landowners, primarily.

Q. If all went well, when would you start construction on the pipeline?

A. (BY MR. LaROW) If all went well, the pipeline, I believe, would be about a year construction, and we would not start that until after we were probably a year into the solar field construction, because that would still give us plenty of time to have that on line for operations.

Q. But they could dovetail?

A. (BY MR. LaROW) Oh, that would be the full intent is to have them dovetail.

MEMBER YOULE: Okay, thank you.

CHMN. FOREMAN: Member Eberhart.

MEMBER EBERHART: Thank you, Mr. Chairman.

EXAMINATION

Q. (BY MEMBER EBERHART) I apologize if I ask a question that's already been asked by the Committee members. But one question that came to mind was how did you pick this part of the state to build this plant? The other solar plants that we've looked at have been further south on private lands where primarily the water issue was a net benefit because it was taking existing agricultural lands out of production and so the water use was going to be -- net water use was going to be less than present.

I understand this particular site has some unique characteristics being close to the existing grid and so forth, but were other sites looked at in the state where the water impact wasn't as dramatic?

A. (BY MR. BARTLETT) Yes. We looked at sites, as I testified earlier, all over the southwest and all over the state of Arizona. The reason we selected this site was actually because of the water availability in the aquifer, as well as the letter of adequacy from ADWR that is in our testimony, as well as the proximity to three high voltage transmission systems right there.

And other characteristics of the site, kind of the obvious ones, it's flat; it's got sparse vegetation.

CHMN. FOREMAN: Altitude was an issue?

MR. BARTLETT: Yeah, the elevation of the area actually helps us. We're at least a couple of thousand feet closer to the sun than some other sites in Arizona. And for a thermal process like this, that actually provides a benefit.

Q. (BY MEMBER EBERHART) A follow-up question. If this CEC is denied, I'm not supposing that, but if it was, were there other locations that your firm might be interested in?

A. (BY MR. BARTLETT) As many developers, we're always looking for, you know, the next project. But we had actively looked for a second site kind of along the same timeline about six or nine months ago, but because of the momentum of this project and what we had achieved through the county permitting process and all of our baseline studies and starting our EIS, we're devoting all of our efforts to this project.

MEMBER EBERHART: Thank you.

CHMN. FOREMAN: Member Wong.

MEMBER WONG: Yes, thank you, Mr. Chairman.

FURTHER EXAMINATION

Q. (BY MEMBER WONG) My questions deal with the hardware, the parabolic mirrors and other hardware devices

that you cited a number of high quality providers, manufacturers.

Is there a plan to build a manufacturing facility in this state near the site to produce these mirrors and other hardware? Can you address that, especially in light of a recent -- last year the state legislature and the governor signed a tax credit for these types of manufacturing. Would you address that, please.

A. (BY MR. BARTLETT) Well, Member Wong, we don't manufacture those components, so we can't control that. We do work with the Greater Phoenix Economic Council, and we have been a member for most of the last year and are aware of their efforts. And we do contribute to those efforts by bringing them contacts we have with some of those manufacturers that don't have a facility here.

But the way our project gets constructed, and we've tried to educate Department of Revenue and GPEC about this as well, but you bring a lot of the materials -- you know, these collectors are basically concrete and steel or aluminum and glass mirrors, and you're building these structures that go out over 3,000 or more acres.

And the way it's done is you bring those components to the site, and we essentially have a factory for that three-year period where we're building those

collectors. You know, the steel comes in, the pylons, the motors, the tubes, the mirrors, and then we basically have a factory on site for three years to crank out these solar collectors and then they get installed in the field.

So in that sense, the reason we are trying to work with GPEC on this is because we feel like, you know, we're creating factory jobs. Okay, it's for a three-year construction period, but a lot of that kind of manufacturing that will be done on our site will be very similar to what is going to go on at the Solana site or any other parabolic trough plants in Arizona. So I see that as an opportunity, and we will continue to work with GPEC and with the state in trying to entice some of the component manufacturers to move to Arizona.

Q. The component part manufacturers that you anticipate buying these from, where do they manufacture today? Somewhere in the U.S. or is it foreign?

A. (BY MR. BARTLETT) As I testified to earlier, one of the key components is the collector tube, and one of the two main suppliers in these global plants recently opened a factory -- I think it's on line now -- in New Mexico. So they're operating out of here.

And also one of the -- I think definitely one of the top two suppliers of the curved mirrors for these plants throughout the world also is opening a plant. And

I said earlier, and I still believe it's right, but I believe it's in Pennsylvania. And that trend will continue from some of the other manufacturers.

But really, like I had mentioned, you know, we've got a lot of concrete, we've got a lot of steel, we've got structures. They can all be built by a lot of different companies.

Q. So the steel, for example, could be sourced in Arizona, for example? RFPs?

A. (BY MR. BARTLETT) Yes. I don't see why not.

Q. Do you have financial information that shows the -- well, not financial, but also effluent and water use. Here is what I'm getting at, is I would like to have a document -- maybe you have that already -- that shows the proposed effluent use, your water demand, from years 1 through 10, for example, and how much of that is anticipated from the proposed effluent and how much of that from groundwater.

Is that produced already or can that be produced?

A. (BY MR. LaROW) What we have is when we run different simulations on the project, we get hourly output for generation water use. So we could take that hourly output and turn that into any kind of format that would make sense, you know, for you.

And then what we could do is look at the

availability of effluent. As the mayor said, I think it's a million gallons a day. You look at how that fits into that need. So we do have hourly information about how much water would be required in an average year.

A. (BY MR. BARTLETT) So we have a good understanding of our water needs, but we cannot predict what the output of this plant will be over 10 years because, as the mayor testified, it's all dependent on growth in the Kingman area.

Q. The mayor expressed his own opinion that the deficit in water usage from your facility versus the effluent production would be a temporary use of groundwater. Again, this is his opinion, not an official city opinion.

So what I think would be useful information and helpful for me is to understand the projection, a very conservative basis of what is the effluent projection year 1 through 10, or I want to find out where that crossover point is where we will no longer depend on groundwater and be 100 percent sufficient or dependent on the usage from the treated effluent.

A. (BY MR. BARTLETT) Member Wong, if I could call your attention to my prefiled testimony, Page 17, Line 4. It's Exhibit No. HVS-4. This might give you an example of that curve, the work that we've looked at with the city.

Based on what the wastewater treatment plant is processing today and our estimated need, we looked at a 5 percent annual growth in the output of the wastewater treatment plant. Assuming it comes on line in 2011, and assuming we come on line at the end of 2013, or early 2014, the amounts attributed to the effluent come out to about 90 percent of our cooling water needs, if that nominal growth was assumed.

And if it kept -- if the output of the treatment plant kept growing at the 5 percent annual rate, it's possible we could receive 100 percent of our cooling water from the effluent in the third year of operation of our plant. So maybe that would give you some idea of that crossover point with some basic assumptions of population growth in Kingman, or changing from -- there are areas in town near the plant that are on septic systems that the city manager has said they're getting close to where they may have to convert to a city system and end up being processed through the plant.

MEMBER WONG: That seems to be a very aggressive schedule. I would like to, Mr. Campbell, if you would, communicate with our municipal leaders, the mayor and some of his staff, as well as see what numbers they have.

And not to doubt your information, Mr. Bartlett, but I heard something different today from the testimony

of the mayor. Again, that was not a scientific analysis, but I think we need to know, because, you know, part of our -- I'll just express to you part of my analysis will be what the cost and benefit. Because here we have a $2 billion investment, which is a lot of money, and then separate from the construction benefit to Arizona, it was testified that there's $23 million per year benefit to Arizona. So a $23 million divided by $2 billion, you know, my math calculation comes out to 1.15 percent annual benefit of the gross investment. You know, is that a sufficient benefit to Arizona versus the cost of the groundwater usage?

So, I mean, that's in a very basic sense some information that I would like to learn.

CHMN. FOREMAN: Member Noland.

MEMBER NOLAND: Thank you. Mr. Chairman, I believe that some of these questions may be for Mr. Bartlett since you're on the hot seat again.

EXAMINATION

Q. (BY MEMBER NOLAND) Why do you think that Arizona utilities are not interested in the output from your proposed plant?

A. (BY MR. BARTLETT) I can't really speak for the

Arizona utilities. I am aware of problems with, for example, the Starwood project cancelling a PPA, and I can understand the impact that would have on APS's portfolio for their RPS. And I don't know what the outcome of that will be as far as will they issue a new RFP and consider our project.

But I will say that we have not been allowed to provide an unsolicited bid, which is what we would like to do. Because as I said, SRP and APS have not issued any RFPs for a project like ours this year. UniSource did, but they were limiting the amount of a solar plant to about, I think, one-sixth or one-seventh of our plant, so it was very difficult for us to bid on a small portion of our output if we could have one off-taker.

And we continue to go back to the utilities asking if we can supply an unsolicited bid and haven't been successful at that yet. I understand they have certain restrictions about doing that that makes them reluctant.

Q. They have different restrictions than other states?

A. (BY MR. BARTLETT) I'm not qualified to answer that.

Q. Okay. What other states are interested in your power and have expressed an interest? Can you say that?

A. (BY MR. BARTLETT) I can't disclose the names or the states of the two that we're in discussions with right now. I will say that we have provided bids to every RFP that's been released this year, any utility that could take delivery from our interconnection point, and that includes Colorado, Texas, New Mexico, California, and Nevada, Arizona.

CHMN. FOREMAN: Utah?

MR. BARTLETT: Utah could, but I haven't -- we haven't submitted a bid, or I can't recall seeing an RFP from them.

Q. (BY MEMBER NOLAND) Okay. Jumping off of that bandwagon, in your movie you mentioned the hazardous waste storage. Could you explain to me what hazardous waste you were talking about, Mr. LaRow?

A. (BY MR. LaROW) One of the things for our water treatment, we will have a demineralization process. And those are wastes that are -- or waste from that process are things that we'll dispose of, and I believe they're considered hazardous waste.

We will have -- two to three years into operation the heat transfer fluid starts to break down. And so what you do is you bleed a little bit of that off and consolidate that and then transport that off for disposal at the appropriate facilities.

And then there will be just other miscellaneous things I'm sure, but I don't know what they are, that we will end up having to dispose of. So we want to have a place, a single place on site where we manage all of those kinds of materials.

Q. Okay. You will use groundwater for other uses other than cooling. I think you were very specific about using the effluent for cooling; is that correct?

A. (BY MR. LaROW) Probably, yes. I mean, we will have other uses. We'll have mirror washing. We'll have just different service washing around the facility. We'll have some potable water. I think we're estimating about 4 acre-feet a year of potable water that we'll use. So yes, we will have other uses of water. And most likely under any scenario, we'll still look to get the potable water from a well as opposed to treating effluent.

Q. And finally, the one thing that seems to be very different in your plant from the other solar plants that we have approved like Solana, they used a backup generator with a gas-fired, if I remember correctly, but it was only for backup.

You are suggesting a supplemental use of a gas-fired generator. I just -- I don't quite understand that concept as it relates to the whole solar project.

A. (BY MR. LaROW) We still have to have a backup

generator. If the grid goes down, we've got that in order to shut down the plant responsibly and safely, and then operate what we need to operate.

But the additional generation, the co-firing, where that comes from, again, it's the larger market. The California market, in order for you to sell your power, your energy as renewable energy, up to 2 percent of the input fuel to generate that energy can be nonrenewable, can be a fossil source, and then the total output of the plant can still be considered as renewable energy.

And the reason -- well, I'm not sure exactly the reason that they do that, but one of the outcomes is that so that a plant like ours, if we get a whole day of rain or two whole days of rain, we operate part of one day on the solar thermal, and then we can operate the next day on the fossil fuel and still provide electricity during the peak hours when it's really needed. And then it makes the plant much more valuable to the utilities when they have that reliability of the generation.

Q. Well, I guess that's what a backup generator would be, a backup use as compared to a supplemental use. That's the difference I'm getting at. And I think that one of the things that we heard in the Solana project was the ability to have a firm rate based on the plant being a majority and really all solar generated energy with just a

backup in case of emergency or in case of some other situations.

And so they were able to give a 30-year rate that was very stable compared to when you're using gas-fired or other energy sources that those rates fluctuate and, frankly, they pretty much go up. They don't go down, but they go up.

So I guess are you able to give a firm rate?

A. (BY MR. LaROW) Yes. We have in all of our proposals, we have a firm rate for power. As you say, it's a long-term rate. In our case, it's 20 or 25 years for financing. And that's the beauty of -- one of the beauties of renewable is you have a high capital cost, but you basically have no fuel costs. So the escalation of the energy is basically the escalation of your operating costs, which is the people that are working at the plant and the different inputs that you have for the plant.

And in this case, you know, the fossil input would be so small relative to everything else that that's just captured in that very small increase that we have.

Q. Thank you.

A. (BY MR. BARTLETT) Member Noland, if I may, I think we may be confusing the scale here. The amount of the fuel is very small. Its priority use is backup. And if there's some left in the limit that's imposed on us, we

can use that to generate, and that's not at all uncommon. For example, the SEGS plants in California that are parabolic trough, they actually have a 25 percent limit. They actually can use up to 25 percent of their fuel from natural gas backup because those were developed in the mid-'80s.

Q. But that is California, and this is Arizona.

A. (BY MR. BARTLETT) Yeah.

Q. And I don't want to use our fossil fuels to benefit California.

FURTHER EXAMINATION

Q. (BY CHMN. FOREMAN) And that does bring up an interesting question. How big -- following up on Member Noland's question, how big is this backup, slash, supplemental non-solar generator?

A. (BY MR. LaROW) The way the -- well, we've got the -- our backup, our emergency generator would be about 12 megawatts. That's what operates when the grid goes down. But then the supplemental firing would be -- it's 10, 20-megawatt boilers. And the way they would work is the heat transfer fluid would run through them and then go and make steam. So it would be 200 megawatts, but it would only operate for -- I think in order to meet the

2 percent requirement total as Greg had said of all of the fossil fuel burned, you know, maybe 1.5 percent of the days. So 1.5 percent of 365 is four or five days maybe.

Q. (BY CHMN. FOREMAN) Wait a minute. Now I have got to go back and work on this. You said you have got one 10-megawatt boiler as a backup?

A. (BY MR. LaROW) Emergency generator for electricity, a diesel emergency generator.

Q. Okay. So that's --

A. (BY MR. LaROW) I believe it's 12 megawatts.

Q. Okay.

A. (BY MR. LaROW) 10 to 12, on that order.

Q. Then you have got 10, 20-megawatt boilers that would heat the heat transfer liquid, heat transfer fluid, when the solar array was not able to do that?

A. (BY MR. LaROW) Correct.

Q. And that adds up to 200 megawatts. So we're talking about potentially, if on the very hot day where electricity is selling at premium rates in southern California and in Phoenix, you're being able to throw in 210 megawatts worth of fossil fuel or biofuel generating capacity onto your 340 megawatts of CSP?

A. (BY MR. LaROW) No. The amount that we can put out to the grid is limited by our turbine, which is 340 megawatts under any scenario. So the only way we would

use that 200 megawatts of thermal --

Q. Wait a minute. Didn't you just say that the diesel turbine had a separate turbine?

A. (BY MR. LaROW) No. It would be a diesel engine. A truck -- you know, a diesel generator that would generate electricity. And the purpose of that would be to shut down the plant safely when the grid goes down.

Q. But that diesel would still be heating, the heat transfer fluid would still be going through the same --

A. (BY MR. LaROW) No. No.

Q. It would be --

A. (BY MR. LaROW) It would be generating electricity for safe shutdown of the plant only. It would kick on when the grid goes down.

Q. All right.

A. (BY MR. LaROW) And only when the grid goes down.

Q. And the other 10 would be the ones that would heat the heat transfer fluid?

A. (BY MR. LaROW) Correct. And they would operate if we had a series of days when we could not generate but the utility wants the power for meeting peak load.

Q. Well, there's nothing in the CEC that would -- I mean, electricity sells the most on the spot market when it's needed the most, correct? That would be on a particularly hot day in the southwest in the summertime,

correct?

A. (BY MR. LaROW) Yes.

Q. All right. There's nothing in the CEC that would prevent you from cranking up your diesel and your 10 other generators and cranking out that extra 210 megawatts, would there?

A. The limit of the turbines, the steam turbines.

Q. Just the limit of the turbine. Yeah.

A. (BY MR. LaROW) That's -- we can't put out more than the turbine can put out. And then the 10 megawatt, 12 megawatt emergency generator, we're going to be limited on what amount that we can use that in our air permit.

Q. Okay.

A. (BY MR. LaROW) As an emergency generator, there's limits on how much you can operate equipment like that and still be considered an emergency generator.

Q. You're going to have to have a separate air permit, then, for the other 10, aren't you?

A. (BY MR. LaROW) We'll have one air permit that will cover all aspects of the project.

Q. And you're telling us that that air permit is going to be limited?

A. (BY MR. LaROW) Yes. It will limit the amount of hours we can run the emergency generator. It will, by the input that we provide, it will limit probably the amount

of fuel that we can burn, because that's an easy thing to measure for these supplemental firings. It will include -- also include it in that overall limit because it's all the same fuel will go up in the air would be the amount of fuel that we can burn for the auxiliary steam.

Q. And the amount of fuel that you have articulated in the --

A. (BY MR. LaROW) In the application.

Q. -- in the application is 180,000 --

A. (BY MR. LaROW) British thermal units, BTUs.

Q. BTUs?

A. (BY MR. LaROW) Yes. And that --

Q. Is that something that you're willing to accept in the CEC?

A. (BY MR. LaROW) Yeah. That's the number that we're looking at in our air permit.

CHMN. FOREMAN: Okay. All right. Very good.

Yes, Member Mundell.

MEMBER MUNDELL: Thank you, Mr. Chairman.

FURTHER EXAMINATION

Q. (BY MEMBER MUNDELL) So have you already filed your air permit?

A. (BY MR. LaROW) No, we have not filed it yet.

Q. And that will be filed with ADEQ?

A. (BY MR. LaROW) Yes, correct.

Q. Because some counties have their own, but Mohave doesn't. So you would be filing that at some point in time with the limitation that the Chairman just talked about?

A. (BY MR. LaROW) Yes.

Q. And then just so -- and I haven't done the math, and Mr. Houtz probably has it memorized, but we were talking about gallons per day and then acre-feet.

Just so I'm clear, when the plant begins operation in 2013, you will be using 90 percent of your water will be effluent?

A. (BY MR. LaROW) 90 percent of the cooling water, which is 2,200 acre-feet of the 2,400 acre-feet that we're looking at.

Q. Okay. So what is the total, then, sort of to Mr. Wong's question. What would be the percentage of effluent? I haven't done the math, and I'm a little country lawyer, so I haven't done the math.

What would be the total percentage, then, of all water usage that comes from effluent when the plant opens on day one?

A. (BY MR. LaROW) I think the mayor gave a range of 1,700 to 1,900 acre-feet. If we take the middle, 1,800

acre-feet of effluent available, we use 2,400 acre-feet, it would be 75 percent of the total demand of the project would be supplied by effluent.

Q. On day one?

A. (BY MR. LaROW) On day one.

Q. Okay. And then to follow up, I heard 5 percent growth from Mr. Bartlett, and I thought I heard 3 percent from the mayor this morning. And then I heard some caveats from Mr. Bartlett about, you know, septic tanks in the area going off, you know, being taken out of service and utilizing the treatment plant. So I'm just trying to clarify what you are using as your growth potential.

A. (BY MR. BARTLETT) We're not using -- predicting Kingman's growth. The 5 percent was an example of let's imagine there's a population growth in the area that generates more effluent.

Q. I don't want to imagine. I'm trying to -- and I didn't mean to be sarcastic. I'm trying to understand.

On day one, 75 percent, you just told me, of all of the water usage of the plant will come from effluent. So at some point in time as the facility expands from one million gallons per day to the maximum, I thought the mayor told me of five million sometime in the distant future, there's going to be this gradual decrease of groundwater and increase of effluent. And I was trying to

get a handle on it just like Member Wong was, you know, because that will help me make a decision on this application.

A. (BY MR. BARTLETT) Sure. Well, the day one example has assumptions built in, because day one is 2014. The mayor was saying that range of effluent is what is available at the plant today, what is coming out of the plant today.

Q. One million gallons per day?

A. (BY MR. BARTLETT) Right. So the day one example we just went through assumes that the output of the Kingman treatment plant continues as it is today without any growth or diminishing until 2014. So that is our -- our day one example has those assumptions.

MEMBER MUNDELL: Okay. Thank you.

Thank you, Mr. Chairman.

CHMN. FOREMAN: Member Houtz.

MEMBER HOUTZ: I am assuming that there will always be some kind of groundwater use, because we don't generally use effluent for potable supplies. And so there will at least be some kind of well available at the plant site for potable uses?

MR. BARTLETT: Yes, Member Houtz. And we need to have the groundwater system that we described with the four on-site wells, no matter what, for that usage and any

residual usage of potable water. But also in case there's a problem with the water supply that's out of our control, you know, during operation. You know, the plant, something happens at the treatment plant, we have to have a redundant water supply to keep our plant operating.

MEMBER HOUTZ: That's really what the terrorists haven't figured out is all you have to do is blow up the effluent pipelines.

MEMBER MUNDELL: You just let them know.

MEMBER PALMER: Mr. Chairman, I rely on Member Houtz for advice from ADWR. My calculation is that the mayor testified that there are a million gallons per day produced, projected to be produced by the effluent plant.

MR. BARTLETT: That's the Class A plus that he said, if they prepare all A-plus.

MEMBER PALMER: Isn't that 1,100 acre-feet a year?

MEMBER HOUTZ: Pretty close.

MR. LaROW: But then there's another 500,000 gallons per day of B-plus.

MEMBER PALMER: He didn't say that. Okay. Now --

MEMBER HOUTZ: There's two plants.

MEMBER PALMER: But he didn't mention the B-plus component. So now we're up to 1,600 or 1,700 acre-feet,

which is 75 percent, roughly, of the projected.

MR. BARTLETT: Yes. And part of the good faith effort we're going through with the city engineers is, you know, if we have a water treatment facility at our site and we can use all B-plus effluent, then the city doesn't have to pay the additional cost to operate their plant to generate A-plus. So we're trying to look at the water quality and what class of effluent we can take and do the treatment at our site versus treatment at their site, and those details have to be worked out.

And the other thing I would like to mention is the ultimate quantity of water that we use for cooling depends a lot on the water quality. So if we pump groundwater -- all of our estimates are based on using groundwater to date. And if we're delivered all of our cooling water from Class A effluent, we don't have to treat it as much, we may be able to use less.

MEMBER PALMER: That was my next question.

MR. BARTLETT: And it's a complicated, you know, study that we're, you know, well underway with trying to optimize both the economics as well as the water use.

MEMBER PALMER: One follow-up question. I have a co-chair of the follow-up question.

The follow-up question: What is the projected initial capital cost of that B-plus to A-plus conversion

filtering factor that you're talking about that you would be willing to spend that money to upgrade that as opposed to having the city expend that money to upgrade the quality of water from the B-plus plant?

MR. BARTLETT: I don't know. I think I have it in some notes from meetings in the past.

MEMBER PALMER: It's in the millions you would guess?

MR. BARTLETT: I don't know, but let me clarify. It's my understanding the plant is being built, okay, without us. It has Class A treatment processing built in.

What I was referring to as savings would simply be the operational costs, not the capital cost of the plant. They're building processing for A-plus and processing for B-plus effluent. So they've committed the capital cost.

But if we can take B-plus, they don't have to operate the equipment for the A-plus, and that will save them operating expenses. And I have been given an estimate of those operating expenses. I just can't recall off the top of my head.

MEMBER PALMER: Thank you.

CHMN. FOREMAN: Member Whalen.

MEMBER WHALEN: Thank you, Mr. Chairman.

EXAMINATION

Q. (BY MEMBER WHALEN) Gentlemen, just a couple of questions. At the start of the hearing today there was some talk about whether the entire plant would come on at one time or half at one time. As you go through the installation process of the mirrors, is it set up to where it can be phased in, or will you be operational for half, or will you be all at once?

A. (BY MR. LaROW) With the single turbine it would be all at once. If we go with multiple turbines, we could phase in the operation potentially, which would let us start generating revenues earlier.

Q. And you have not made that decision yet?

A. (BY MR. LaROW) Not yet, no.

Q. That's an economic decision?

A. (BY MR. LaROW) Yeah, it's an economic and it's also a power purchase agreement decision.

Q. Okay. Second question is running the 2 percent temporary gas-fired or whatever fossil fuel fired, do you have to meet county air pollution standards with that then also? I realize it's not a containment area, but --

A. (BY MR. LaROW) I'm not aware any specific county permit or county emissions requirements. We know we have to meet the state requirements for the minor permit that

we'll be requesting.

Q. Okay. I'm not familiar with the county's requirements also, but that was just one of the questions. On gas-fired plants there's a lot of scrubbers and stuff have to be, you know, there for the emission qualities, but most of my experience has been in Maricopa County.

A. (BY MR. LaROW) Yeah, it would be a minor permit. It would not be a major permit.

Q. The mirror washing procedure, how is that done? Is it an automated procedure or is that a hand-washing approach?

A. (BY MR. LaROW) It's not a hand-washing procedure, but it's with trucks, basically with specially equipped trucks. And it's -- you know, it's a cycle and it could be as often as every two weeks every mirror gets washed.

Q. So it's continuous throughout the entire --

A. (BY MR. LaROW) Yes.

A. (BY MR. BARTLETT) Typically what is done is two parallel collector troughs are turned to face each other vertically and you drive a truck down the middle that essentially power washes through it.

Q. Does it have a blower on it also?

No, I'm just kidding. Just kidding.

And then the last thing is the evaporation ponds.

I'm assuming they will be lined, and what type of procedure do you have in place to have them removed and cleaned periodically?

A. (BY MR. LaROW) Our intent is that we would build them so they would not be removed and cleaned. They would be there for the life of the project. They would be lined and monitored as necessary by our aquifer protection permit.

Q. There's also some question in previous hearings on birds being attracted to those water ponds. Have you addressed that or have your environmental people addressed that?

A. (BY MR. LaROW) Can we wait until the environmental people?

MEMBER WHALEN: Yes, that's fine. Thank you.

CHMN. FOREMAN: Member Mundell.

FURTHER EXAMINATION

Q. (BY MEMBER MUNDELL) Just to clarify so I'm clear, the 75 percent figure that you gave me includes both the A-plus and B-plus --

A. (BY MR. LaROW) Correct.

Q. -- effluent?

A. (BY MR. LaROW) Correct.

Q. But we don't know at this point -- well, okay. You talked about having an on-site treatment to deal with the B-plus?

A. (BY MR. LaROW) Well, to deal with all of the water that's coming in, whether it's from the ground, whether it's A-plus or B-plus, we will have different levels of treatment that that water will get based on how it's used. The cooling water would be the least amount of treatment. Then there's the mirror washing and the boiler feed water would get the most treatment. Potable water would get all of the treatment it needs also.

Q. So under all different scenarios and circumstances, on day one, 75 percent of the water used at the facility will be effluent from the Kingman facility?

A. (BY MR. LaROW) If it's available at the site, yes.

Q. Okay. What does that mean? Because you qualified your answer.

A. (BY MR. BARTLETT) The example, the 1,700, 1,800, there is no treatment plant today. It's not --

Q. I understand that.

A. (BY MR. BARTLETT) So they can't say what the output is. So they gave the example of what is available today. So the 1,700 to 1,800 is what is being evaporated today at the existing treatment plant. And so the best

number we can use to estimate what might be available in the new plant is what is coming in to the old plant because it's on the same site.

So they're saying we expect one million gallons a day of Class A. And whether it's Class A, Class B, how much there is, those are the details that, you know, won't really be known until they build the plant.

But we're trying to give estimates based on kind of what we know our usage is going to be and what exists at that site today for the treatment plant, because anything else we feel would be more speculation.

Q. Well, I understand they're not going to have a total, I mean, the exact number of gallons, but as I understood the testimony, you know, it's going to be one million gallons per day in 2011, correct?

A. (BY MR. BARTLETT) That was the testimony.

Q. Give or take a little percentage. But I mean, their engineers, based on some due diligence, have indicated that it's going to be approximately one million gallons per day of effluent.

A. (BY MR. BARTLETT) Of Class A, yes.

Q. Of Class A?

A. (BY MR. BARTLETT) Yes. So if we can only use the Class A, we would have access to however much of that one million gallons a day they would make available to us.

MEMBER MUNDELL: Thank you.

MR. BARTLETT: We would like it all.

MEMBER MUNDELL: Thank you.

CHMN. FOREMAN: Well, all good things must come to an end. Any redirect?

MR. CAMPBELL: No redirect.

CHMN. FOREMAN: Very good, thank you.

Let's take a brief break. It is my intent to start again at quarter of 5:00 with our next witness and go until 5:30, or sooner should we finish with testimony and cross-examination, and then start up at 6:00 again with public comments.

(A recess was taken from 4:32 p.m. to 4:42 p.m.)

CHMN. FOREMAN: Let's go back on the record.

Counsel, you may proceed with your next witness.

MR. ACKEN: Thank you, Chairman. The Applicant calls Bill Victor.

CHMN. FOREMAN: Mr. Victor, would you prefer an oath or affirmation?

MR. VICTOR: An oath is fine.

(William Victor was duly sworn.)

MR. ACKEN: Thank you, Chairman.

CHMN. FOREMAN: Tell us your name and spell your last name for the court reporter, please.

THE WITNESS: My name is William Victor,

V-i-c-t-o-r.

CHMN. FOREMAN: All right. Counsel, you may proceed.

MR. ACKEN: Thank you, Chairman.

I will take a moment just to set the stage of the exhibits that we're going to be discussing. Mr. Victor's prefiled testimony can be found behind -- it's been marked for identification as HVS-8 in your hearing notebook. The slides that he will show on the screen have been marked for identification as HVS-9.

He will reference two studies that he conducted. The first is contained within the application, which has been marked for identification as HVS-1, and his study is Exhibit B-1 to HVS-1. The supplement that he will discuss has been marked for identification as HVS-22, and then he will also reference a letter that was handed -- that he prepared that was handed out this morning that has been marked for identification as HVS-24.

WILLIAM VICTOR,

called as a witness on behalf of the Applicant, having been previously duly sworn by the Chairman to speak the truth and nothing but the truth, was examined and testified as follows:

DIRECT EXAMINATION

Q. (BY MR. ACKEN) Mr. Victor, did you prepare the written testimony of Bill Victor that's been marked for identification as HVS-8?

A. Yes, I did.

Q. And do you adopt that as your testimony here today?

A. Yes.

Q. I would like you to summarize your written testimony, starting with your professional and educational background.

A. I am a principal in the Arizona-based water resources consulting firm Montgomery & Associates. My principal responsibilities there are project management and senior technical oversight for various groundwater investigations in the United States and South America.

I hold a bachelor of science degree in geology from Northern Arizona University, a master of science degree in hydrology from the University of Arizona, and I'm also a registered professional geologist in Arizona, California, and Kentucky.

I have over 30 years of experience of characterizing groundwater conditions in various environments in the United States, Mexico, and South

America. I also have extensive experience in Mohave County demonstrating the availability of groundwater for use in the basins here.

Q. Mr. Victor, there's been a lot of discussion today about the Applicant's desire to use effluent and some concerns raised about groundwater availability in this area. What is the purpose of your testimony as a hydrogeologist?

A. The purpose of my testimony is to provide the results of the investigations my firm did, which will include the availability of groundwater for this project and the potential impacts of pumping groundwater for the project.

Q. And what studies did you conduct?

A. We conducted studies that led to two technical memoranda. The first was issued in November of 2009. It's Exhibit B-1 to the application. The title is, "Groundwater Flow Model For Hualapai Valley Solar Project, Mohave County, Arizona." The modeling conducted for that report was done in June and July of 2009.

Subsequent to that, we were involved and became involved in the environmental impact statement work being conducted by the Department of Energy and the Bureau of Land Management regarding the transmission line which will cross BLM land from the solar project. And for that

project we were asked to consider additional things such as cumulative impacts on the aquifer, as well as a range of alternative pumping rates for the HVS plant. It also gave us an opportunity to evaluate some new information provided by the Department of Water Resources.

Q. Please summarize your findings for the Committee. And if you would, address the question specifically of whether there's sufficient groundwater in the aquifer even if this project does not use effluent as its primary source for cooling.

A. Based on my investigations, I have found that only a minute fraction of the groundwater stored in this aquifer is currently used. In fact, less than a percent of the volume in storage has been used over the last 40 years of groundwater pumping.

The projected impacts of pumping wells at the HVS facility would meet the stringent criteria for well impacts to other existing users if this were an active management area, which, of course, it's not.

Thirdly, after 30 years, the projected impact of the HVS pumping would not be substantial, and, in fact, would be much less than one foot of drawdown in the populated areas in the valley of Kingman, Dolan Springs, and Valle Vista.

Fourth, the amount of available groundwater set

aside or determined to be available by the Department of Water Resources for 100 years for the land that the plant is proposed to be located on is about twice as much as the HVS intends to use if it uses groundwater as its sole source.

And finally and most important, there is sufficient groundwater available in the aquifer to meet the water resources requirements for the plant without significantly impacting existing groundwater users.

Q. Mr. Victor, do you have a copy of the letter that's been marked for identification as HVS-24 in front of you?

A. I do. That's the letter to Mr. Nicholas Hont.

Q. And the date of that letter is September 12, 2009?

A. That's correct.

Q. And was this a letter that you drafted and provided?

A. I did.

Q. Could you describe for the Committee the purpose of this letter?

A. The purpose of the letter was to be in lieu of my testimony or comments to be made in front of the Mohave County Zoning Commission. I attended the first meeting for the HVS site there. However, the agenda did not get

around to our project. And I could not make the second meeting, so I submitted this letter in lieu of that testimony.

Q. And are the conclusions in that letter consistent with the findings that are shown on Slide 4 of your testimony?

A. Yeah. Would you go to the slide there? There we go. They're essentially the same except for one additional conclusion in this letter, and that regards the General Plan Policy 3.5 regarding depletion and subsidence in the basin. And I have found that the conditions that would trigger those, the policy requirements under 3.5, do not occur at the HVS site.

Q. Next I want to turn to the model that you used to develop your findings. If you would, take a moment for the Committee and just describe the background of how it was developed.

A. The model that Montgomery & Associates constructed for the Hualapai Valley basin was first constructed during the 2005 to 2007 time frame for use in demonstrating available groundwater resources for several developments that were being proposed in the valley. We constructed that based on all of the available well data, all of the geophysical data available at that time, as well as reports and other publications that were compiled

for that effort.

We were going -- all of these developments I'm talking about were going through the ADWR water adequacy process, and so the model was scrutinized and reviewed by ADWR over a period of about several months, and that included several meetings, as well adjustments to the model to take into account some concerns that were raised by DWR. In late 2007, DWR did approve the model and issued letters of analysis for our client.

That same model then was used for this project, and we simply added to the input for groundwater demand the proposed water demand for the HVS site. That demand for our model was assumed to be 3,000 acre-feet per year, which was the high end of the range of values given to us by the HVS engineers during that time. Since then, they have refined their design, and the average groundwater use is reported to be 2,400 acre-feet per year.

Q. Describe the aquifer in which the project is located, and maybe start with just that, the location map of the aquifer.

A. This is, again, a map of the basin. It shows the outline of the surface water drainage here and in black here. Red Lake is shown in the center of the basin as a red cross-hatched area, and the site is the yellow. Kingman is in the southern part of the basin here. This

is Highway I-40 and 93 going off to Vegas.

This map shows an important -- one important thing to bring up on this is the Kingman sub-basin to the south, the Red Lake sub-basin in the center of the valley, and the great sub-basin to the north. The dots you see spread throughout the basin are over 1,100 existing wells in that basin.

The length of the basin is about 66 miles, an average basin is about 18 miles, covering a total area of something over 1,200 square miles. Groundwater in the basin flows from south to north towards the Lake Mead area. Discharge to that area has been estimated in the literature to be about 3,800 acre-feet per year.

Our model was calibrated going back to the 1960s to a time when there was very little groundwater use in the basin, so we assumed that the basin at that time was in a state of dynamic equilibrium in which the natural recharge equals the natural discharge from the basin; so therefore we also assumed 3,800 acre-feet per year for recharge. And we distributed that recharge about 70 percent along the mountain fronts and about 30 percent in the major drainages, the washes of the basin.

Next slide. This slide shows the surface geological features. Again, the basin boundary is shown by this black line, and the neutral colored area in the

middle is the alluvial deposits that fill this basin.

The blue hatched area is the subsurface extent of a large salt deposit that underlies the aquifer in the Red Lake sub-basin. And these black lines are contours of depth of bedrock. And we can see we have a large structural depression in the Kingman sub-basin; a broader, shallower, structural depression, assuming that the salt deposits represent bedrock, hydrologic bedrock for this purpose, and a smaller structural depression to the north in the Gregg sub-basin.

Now, we have lines of section that we have constructed and are given in our reports.

MEMBER HOUTZ: Mr. Victor.

CHMN. FOREMAN: Member Houtz.

MEMBER HOUTZ: On these three sub-basins, do we know enough about the basin as a whole? Are there geologic features beneath the ground between the sub-basins that form some kind of block or plug between the two sub-basins?

THE WITNESS: We don't believe so, and we've always assumed that they're connected. There is, in the area of Long Mountain, there is a constriction of the groundwater flow there.

MEMBER HOUTZ: So the flow is constricted into a narrow area between the two sub-basins?

THE WITNESS: That's correct.

MEMBER HOUTZ: Relating to that is you have the Detrital to the west and the Mead and the Peach Springs basins. Is there interflow between those basins?

THE WITNESS: Not to our knowledge.

MEMBER HOUTZ: But there is some kind of bedrock?

THE WITNESS: Yes, that's right. Especially for the model, we assumed there was no interbasin flow. So we're assuming all groundwater pumping comes from storage here and recharge.

So as I was saying, the long, black line here is section A-A prime. That will be the following slide. But first I would like to mention that we use the depth of bedrock information together with the water level surface for the basin, which was determined measuring water levels in wells to calculate the amount of groundwater in storage in the basin. And we calculated for the entire basin a value of 27.7 million acre-feet. That's in the Red Lake basin. That's just the groundwater above the salt body.

Of that 27.7 million acre-feet, 15.8 million acre-feet is calculated to occur above a depth of 1,200 feet. And that 15.18 million acre-foot number is comparable to the range that's been given by the U.S. Geological Survey, which ranges from 10.5 to 21 million acre-feet for that shallow part of the aquifer.

Next slide, please.

This is the hydrogeologic section I was speaking about. We have the Kingman area in the south on the right side, Lake Mead to the left, and you can see the land surface, as well as this blue line, which is the water table. Both slope down to the Lake Mead area. The white areas here are bedrock. So we can see the structural depression we were talking about in the Kingman sub-basin.

Again, there's a bedrock high in between those two sub-basins. And here is the Red Lake sub-basin underlain by the salt body at depth, which is in the gray hatcher here, and then the Gregg sub-basin. And all of these vertical lines along that cross-section indicate locations of wells from which we derived data for that cross-section.

Next, please. The purpose of that slide is to show how stable the water levels have been generally in this basin since the 1950s. We have generally stable, or in the case of Red Lake, in some places rising groundwater levels over the last 40 years. There are two places where that is not true. And in the Kingman sub-basin, especially near the City of Kingman well field, we have had a drawdowns on the order of 50 or 60 feet in that time period over the last 40 years.

Also in the Truxton Wash area there is a water

company that pumps groundwater there, and we've had drawdowns on the order of 50 or 60 feet over the last 60 years there. But generally, groundwater levels have remained fairly stable in the other parts of the basin.

Next, please. This is kind of a concluding slide showing most of our results here for the study that we conducted. This is a simulation, results of a groundwater modeling simulation which was developed to show maximum cumulative impacts for the basin. So as we show on the side here, these are all of the various pumping and water demands that we calculated into this simulation.

And I can go into detail on these if you would like, but I would like to at least focus on the last item there, which indicates that the total pumping that we assume for that maximum cumulative impact case is more than three times the groundwater usage that's been estimated and projected in the US-93 quarter plan by the county. So we believe it's quite conservative.

Looking at the diagram here, we have the blue area is the extent of -- a subsurface extent of the saturated part of the alluvial deposits. The light tan areas are areas where the -- it's an unsaturated part at the edge of the alluvial basin. And the red areas here are areas that become dewatered during the 30-year time period that we simulated.

This simulation begins in -- well, the pumping that is simulated for HVS begins in 2013 and ends in 2042, so that's our 30-year period.

All of the wells that you see in here are simulated wells based on all of this pumping usage. And the green contours we show here are contours of water level drawdown due to pumping at HVS Solar.

The way we made this diagram was to run the model with HVS pumping and all of the other pumping, and then we ran it without HVS pumping and we just took the difference there. So these drawdown contours, because they're due to HVS, are bullseyed right on the site here, which is outlined in yellow.

And the maximum drawdown shown there was 63 feet after 30 years of pumping at 3,000 acre-feet per year. That drawdown decreases rapidly away from the center of the site to where at the site boundary we're talking about more like 15 to 20 feet of drawdown.

And that decreases out to the edges of the Red Lake sub-basin where we have our one foot drawdown contour, which demonstrates that even in the maximum cumulative impact case, the populated areas of Valle Vista, Kingman, and Dolan Springs have far less than one foot of drawdown due to HVS pumping.

And I would just say in addition to that that

ADWR has the ability to require developers in the future, if this project goes forward, to account for the water that is being pumped by HVS.

Next slide, please. The purpose of this slide is simply to show that, again, if this were an active management area like the Phoenix area, which it's not, there is criterion imposed by the state for new wells such that they cannot impact existing wells to a degree of more than 10 feet in the first five years, and this site complies with that criteria.

Again, it's similar to the last diagram. You have the green water level drawdown contours. This is looking five years after groundwater pumping starts. So it ends in the year 2017. And you can't see it very well on this slide, but the 10-foot drawdown contour is mostly contained within the site and none of the existing wells in the area fall within that.

Next slide, please.

Q. (BY MR. ACKEN) Mr. Victor, are you familiar with a report that was prepared by ADWR in September of 2009?

A. Yes. In September 2009, ADWR issued a bulletin that was Water Report No. 11 for the Hualapai basin, and it provided results of gravity geophysical surveys that they have been conducting for the last several years and analyzing. We were able to use some preliminary results

of that study back in 2007 when we constructed our model, but the remainder of the results were not available until just recently.

So they're not included into our model, but what we have done is analyzed the differences between their gravity data derived bedrock surface and the bedrock surface that we used in our model. This diagram is color-coded to show those differences. Areas where there is reds and oranges indicate areas where our model bedrock surface is shallower than the ADWR bedrock estimated surface, and the deep blue areas are areas where our model estimated bedrock surface to be deeper than where ADWR's was.

In the middle area of Red Lake sub-basin, there's much less difference between the two models. I should emphasize that it's the hydrogeologic conditions in the Red Lake sub-basin that chiefly control our projected impacts on the HVS pumping.

This central area of the valley, the color codes on this indicate that our model projected a somewhat deeper bedrock surface on the east side of the Red Lake sub-basin versus a shallower surface than the DWR surface on the west. That's primarily because we used the information from four deep drill holes to project a tilt to the top of that salt body, whereas the DWR surface is

just flat for it.

So there really isn't much difference here. In fact, the volume of saturated aquifer material in the Red Lake sub-basin is only different by about 5 percent. So we don't feel that that difference affects our projections for this project at all.

Q. Does the ADWR report affect your findings concerning this project?

A. No, it does not, as I just spoke.

Q. And so is it your conclusion that there's sufficient water available for this project even if effluent is not used?

A. Yes, there's clearly sufficient water available. I think that's demonstrated not only in the work we did for this project, but the work we did for the previous developers in the basin for the life of that project, without significantly impacting the existing groundwater users.

Q. Does that conclude your testimony?

A. Yes, it does.

MR. ACKEN: Mr. Victor is available for questions.

CHMN. FOREMAN: Member Houtz.

EXAMINATION

Q. (BY MEMBER HOUTZ) Obviously, I was going to ask you some questions. I want to start with the September 12 letter.

A. Okay.

Q. And attached to that -- and that is also in the record in another spot -- is the November 9, 2007, analysis of adequate water supply issued by the Department of Water Resources to, I assume, Rhodes Homes?

A. Yes.

Q. And I think Mr. Bartlett testified that about 85 percent of the lands that Hualapai Valley is proposing to use for the site would come out of the Rhodes Homes lands that were analyzed for this determination; is that correct?

A. That sounds about right.

Q. An analysis of adequate water supply, you have probably worked on a few of these before?

A. A few.

Q. What does that mean to a developer if he gets this?

A. Yeah. If a developer is able to get a demonstration of adequate water supply from the state, or a physical availability in this case, it means that for

the next 10 years, other residential developers must take into account the groundwater that is more or less set aside for that developer when they're calculating impacts to the basin.

Q. If the development goes forward, then it becomes a permanent thing that new developers have to look at; is that correct?

A. That's correct. And typically these developments come in phases. And what I meant before about developers needing to take or possibly needing to take into account HVS's pumping, is as they come in with their phased developments, DWR has -- in fact, it's part of the analysis letter that you just spoke of -- has the ability to take another look at the hydrogeologic conditions, new information that's available, and take that into account.

Q. In looking at this analysis, it basically said that for 100 years there was about 70,000 acre-feet available for the development, of which, oh, roughly a third was going to be generated effluent on the project. So it anticipated using about 43,000 acre-feet of groundwater over this land mass.

Do you recall how big the proposal was in acres?

A. Looking at my letter on the top of the second page with the September 12 letter -- let's see. I believe we -- or excuse me. It's at the bottom of the first page.

The total acreage was 36,236 acres in the Rhodes Homes application for the development.

Q. Okay. And so I see there you have calculated a percentage of the lands to be acquired by Hualapai Valley from Rhodes Homes there.

Does the acquisition by Hualapai Valley, would that reduce the analysis water available to Rhodes Homes for future development?

A. My understanding is that it would not necessarily do that, because I believe that Rhodes Homes would have the ability to come in with a different sort of plat to phase in their development and not necessarily -- and possibly would still have all 43,000 acre-feet available to them.

Q. So it isn't necessarily -- you couldn't necessarily claim that this is water that was committed for another use that now could not be used for that use if Hualapai Valley does pump?

A. That's my understanding, right. And the analysis that I gave here in this letter was simply to show that the use for this acreage is less than what the -- potentially what the developer would have used on it.

Q. But the developer would have to go in and redo the analysis or get a -- request an amendment to the analysis to keep that amount of water since it would be

less acres?

A. I'm not sure about that.

Q. I believe that's the case.

A. Okay.

Q. I had another question. I'm thinking about it.

Oh, the analysis lasts for 10 years, but it can be extended upon request of the developer?

A. That's correct.

Q. Or by a phased construction can extend that?

A. That's correct.

Q. This analysis of going to this amount of water, how deep does DWR look for availability of water for this?

A. Throughout most of the state, it's 1,200 feet. So the developer can only consider the groundwater that's available above that depth when determining the physically available water for its development.

Q. When DWR makes this determination, the developer then has a right to use this amount of water if they go forward with the development?

A. That's my understanding.

Q. And does the department look at a safe yield analysis for the basin to make these determinations?

A. They certainly rely and analyze the hydrologic report, which is required by the developer for, you know, the water supply process. Whether or not they do a safe

yield analysis, I'm not certain of that.

Q. Inside of AMAs they have to do a safe yield analysis. Outside they just have to show physical availability of the water to 1,200 feet.

A. I believe that's correct.

MEMBER HOUTZ: Okay. I don't have any more at this time.

CHMN. FOREMAN: Member Eberhart.

EXAMINATION

Q. (BY MEMBER EBERHART) How close is the nearest well to the site that would be affected by your pumping?

A. The nearest well is within two miles of the site.

Q. And have you analyzed the effect of HVS pumping on that particular well?

A. Yes, and it's about 5 feet after 30 years at the pumping rate of 3,000 acre-feet per year.

Q. And is that a private well or --

A. It's a well that I believe is -- it's just to the west of the property, so I believe it's also on Rhodes Homes' property.

Q. Going back to the studies you did in 2007 for the developers, have those developments been built?

A. No. No, they have not.

Q. Was it more than one developer other than Rhodes?
A. Our client was one developer.
Q. And do you have an estimate of the likelihood that those will go forward?
A. I do not.
MEMBER EBERHART: Thank you.
CHMN. FOREMAN: Member Mundell.

EXAMINATION

Q. (BY MEMBER MUNDELL) So, Mr. Victor, if I understand your testimony, you did modeling in the 2005 to 2007 time frame for a prior client?
A. Yes.
Q. And that was a developer. Who was that?
A. That was Rhodes Homes.
Q. And you just dovetailed that study for this client utilizing that modeling to do your modeling for this proceeding?
A. That's correct, adding in the additional pumpage.
Q. And then I guess I'm a little confused. This property was purchased from what entity?
A. I don't believe the property has been purchased. I believe they have an option to purchase.
Q. Okay. Well, who is the option to purchase with?

A. I assume it's with Rhodes Homes, but I'm not certain of that.

Q. Okay. So I guess what I'm trying to understand, I guess there's two different applications or developments of Rhodes Homes. Because you showed a screen, one of your slides, if you could go back to it. Yeah. It shows Mardian and Rhodes Homes, and so they had two different developments. Is that what I'm understanding?

A. Rhodes Homes had five different developments --

Q. Okay.

A. -- in the Hualapai Valley that I was involved in, and Mardian Ranch had one other development to the north in the -- more in the Gregg sub-basin area.

Q. So the option to purchase in this application is just one of those five developments?

A. Yes. In fact, it would be the only -- well, I should say that the major development by Rhodes Homes that they applied for during that time period of 2007 is called the Red Lake subdivision, so --

Q. And so the updated information that you ascertained from the September 2009 DWR study, to summarize, actually showed what?

A. Well, if you would move to the slide showing -- that one right there.

What they reported were results of the

geophysical studies they had done. Then they also in addition estimated groundwater and storage based on selection of specific yields for the aquifer and the volume of sediments that they have estimated from these geophysical studies.

Q. So I guess I'm trying to understand. There was really -- from the preliminary DWR data in 2007, using that model and this study of 2009, there was not a significant change in the result that would have been ascertained?

A. In the Red Lake sub-basin, that's true. Most of the differences occurred in the Kingman sub-basin and the Gregg sub-basin to the north.

Q. And then during your testimony, I wrote it down, I put it in quotes. You said "we" meaning -- does that mean hydrologists? Does that mean your company? Does that mean experts in the field when you were talking about interbasin transfer of water?

I wrote it down, because you said we have not discovered or something. I could have her read it back, but I just wanted to understand what the word "we" means.

A. I believe what I was speaking about was how we represented the basin, and we being Montgomery & Associates assumed that there was no interbasin flow with the adjacent basins.

Q. But I don't know -- is there any other, I guess, evidence out there? There might be, or maybe Mr. Houtz knows. I mean, that's why I was asking the question. I wanted to make I understood what you were saying. "We" meaning you haven't assumed there's any, but is there any other data out there that might assume that?

A. I think that it's well-established in the literature, both with U.S. Geological Survey and ADWR, that that, in fact, is the case.

Q. That there's no interbasin transfer?

A. That's correct.

MEMBER MUNDELL: That's what I was trying to understand. Thank you.

CHMN. FOREMAN: Any other questions?

MEMBER EBERHART: Mr. Chairman, just to help clarify Mr. Mundell's last question. ADWR reviewed your model from 2007?

THE WITNESS: That's correct.

MEMBER EBERHART: And they obviously concurred with that assumption that there was no interbasin transfer?

THE WITNESS: Yes. Yeah, virtually every -- all of the inputs to that model. We actually gave them the model, they ran it, and yeah, they agreed with the final product.

MEMBER EBERHART: Thank you.

CHMN. FOREMAN: Member Houtz.

MEMBER HOUTZ: It's my understanding that the department actually met with Montgomery & Associates sometime last fall and provided additional inputs that they should put in there, including all of the stuff we saw. They had originally not projected the committed demands and insisted that that be done before they would certify that the model was valid.

THE WITNESS: Yes. There were new numbers for other committed demand by other users in the basin.

CHMN. FOREMAN: Any redirect?

MR. ACKEN: No redirect. Thank you.

CHMN. FOREMAN: Very good. I think we will call an end to testimony for the day. We're going to resume testimony tomorrow at 9:30. There will be no tour. We will start with the final panel at that time.

My hope is that we will get to Mr. Torres and his group tomorrow morning. We'll start with -- I hope we'll be able to present Ms. Bayer and Ms. Bensusan after lunch tomorrow. All of that is contingent upon the length of direct examination and the enthusiasm for questioning, two variables that are outside my ability to predict.

So if there's nothing else, we'll stop for the evening for testimony, but we will reconvene at 6:00 p.m.

for this evening's public comment session.

(The Evidentiary Hearing recessed at 5:26 p.m.)

(The Public Comment Session commenced at 6:00 p.m.)

CHMN. FOREMAN: If I could get you all to take your seats. It's 6:00. We would like to get started, and we have some preliminary matters to deal with.

The first issue we want to deal with is we have a gentleman who would like to record portions of this matter for radio and newspaper purposes.

Sir, if you would step up to the microphone, please.

MR. HAWKINS: He's asking if you would speak more into the mike. He cannot hear you.

CHMN. FOREMAN: We'll ask the guy back here who can handle the volume to deal with that.

Tell us your name, sir.

MR. HAWKINS: My name is Dave Hawkins.

CHMN. FOREMAN: And you work for?

MR. HAWKINS: You want me to delineate each of the entities?

CHMN. FOREMAN: I would like on the record, yes, the news outlets.

MR. HAWKINS: I'm currently employed by KGMN and KZKE-FM radio based in Kingman. I write for the Review Journal in Las Vegas. I write for the Bee in Bullhead City, the Economic Development Review Journal in Bullhead City, The Standard, which is in Kingman, and an online newspaper posting service that's based in Lake Havasu called JustSayNews.com.

CHMN. FOREMAN: And was I correct in my understanding that you want to record portions of this so that you can use it for news broadcasting?

MR. HAWKINS: Yes, sir. It's standard operating procedure for me here.

CHMN. FOREMAN: Is there an objection by the Applicant?

MR. CAMPBELL: No.

CHMN. FOREMAN: All right. Very good, sir. As long as it's not disruptive, we'll proceed.

Now, we have a number of folks who have filled out speaker slips, these little yellow things that you find over by the door. If you want to speak tonight, you'll need to fill one of those out.

And I'm going to just call them in the order in which I received them, but I think there was someone from this morning who was here. Was it Ms. Selk or Ms. Mynar? Were you here this morning?

MS. SELK: Yes, I was.

CHMN. FOREMAN: You have been here the longest, so we're going to start with you. As you each come up, I would appreciate it if you would give us your name, spell your last name for the court reporter, who is taking down everything here. And I'll just remind everybody, the transcript of the proceeding is going to be filed by my direction in the local public library, and then I believe also in the library for the local junior college. So if you want to take a look at the transcript of not just this proceeding but all of the other proceedings, you may look there.

So, Ms. Selk, if you would come forward. Again, please give us your name, let us know approximately where you live, and tell us what it is that you -- let us know what it is that you think the Committee should do with regard to this application.

MS. SELK: Okay. My name is Jana, J-a-n-a, Selk, S-e-l-k. I live in the City of Kingman. I'll be reading my statement so I can keep my information in order.

In spring of 2008, I attended a master watershed steward class. This program is a partnership of the University of Arizona cooperative extension and the Arizona Department of Environmental Quality. Funding is provided by the U.S. Environmental Protection Agency under

the Clean Water Act and the Arizona Department of Environmental Quality water quality division. All of the information that I present here is directly from the material presented at that class.

Water is not just a luxury but a necessity. Water can be either consumptive or nonconsumptive. Consumptive water means that the water used is no longer available because it has been evaporated, transpired by plants, incorporated into products or crops, consumed by people or animals, or otherwise removed from water supplies.

Nonconsumptive water use includes water withdrawn for use that is not consumed, evaporated, or transpired. For example, water withdrawn for the purpose of hydropower generation is not a -- is a nonconsumptive use, although water used to cool power generating facilities is consumed because it is evaporated.

Consumptive use of water is a growing concern in Arizona. The demand for potable water is increasing as supplies decrease. Aside from these precipitation events, the water cycle to replenish aquifers moves very slowly for the most part, and most of our water is stored in places that we cannot access without great cost.

Surface water makes up the vast majority of the earth's water. Most of that, however, is not available to

us because it is salty. If the world's water supply were represented by one gallon, then our usable supply of fresh water would be only one drop.

Waters are found in the underground deposits called aquifers deposited eons ago. Groundwater is an important water source for Arizona. It is often referred to as a stock resource like coal, oil, or minerals because it cannot be quickly replaced.

Groundwater is water-filled spaces or cracks in geological layers of sand, gravel and rock. This water-filled area is called the saturated zone. The top of the saturated zone is called the water table. The water table rises and falls in depth depending on the amount of recharge received during the year and also seasonally, summer versus winter precipitation. The water table also responds to the amount of water used by people drawing on it and can be drawn down by excessive pumping.

Infiltration is the rate that water enters into the surface from the soil. Various factors affect the time to soak in. A rate cannot be defined, only stated in relative terms based on key properties of the surface soil. Rates range from very slow in tight clay soils to very rapid in coarse, gravelly soils.

This trickle-down infiltration and recharge saturated zone process for groundwater takes time. Deep

groundwater may require hundreds or thousands of years to be replenished. In many areas the rate at which groundwater is able to replenish itself cannot keep pace with the rate at which it is being used, a situation known as overdraft. Most of the groundwater in Arizona is not replenished, so it is generally not considered a renewable resource.

Like surface water, groundwater must be put to reasonable use according to Arizona law. However, outside of the active management areas, there is no legal mechanism by which to restrict or prohibit your neighbor from installing a well deeper than and adjacent to yours and pumping the water table below your well intake.

Groundwater overdraft, removing more water than is replenished by natural or artificial means, is now common in agricultural and urban areas relying on groundwater. This creates several problems. When water is pumped faster than it can be replenished, the water table drops in areas geographically susceptible and land subsidence happens.

Aquifers which contain a high proportion of clay, which is typical in Arizona, are more susceptible to subsidence as the clay is squeezed and compacted as water is removed. Compacted clay is nonelastic, meaning that the compaction is permanent and the capacity of the

aquifer to store water is reduced. Subsidence of several feet has been reported in Arizona and has resulted in damage to roads and foundations. Also, as groundwater is drawn down, wells need to be drilled deeper. This costs more money and energy to pump water back to the surface.

A related problem is that water quality may decrease with depth. Several deep Arizona aquifers overlay layers of salt. With increasing depth of extraction, this water then becomes more expensive to treat for human consumption.

That was all in the book. I would like to add a few words of my own. I'm a member of the Northwest Arizona Watershed Council and have great concern about water. There has been talk of Hualapai Valley Solar using the City of Kingman's effluent instead of groundwater. Will this effluent be used to create the steam to turn the turbines to produce electricity?

This will be quite an extra added expense to the solar company. Not only will they have to purchase the effluent, they will need to build a storage tank, a pumping station, a long pipeline to the treatment plant -- from the treatment plant to the solar plant and maintain this equipment.

Also, the question arises of how much effluent will be available. It seems to be based on the growth of

the City of Kingman. What will that be in the future and when? Also, this still does not stop the solar company from using any amount of groundwater they would like to. As the area grows, there will be more need for water for the living. Also, the effluent could be used on a golf course, a public parkway landscape, or as a recharge to the aquifer.

I have not seen every scientific piece of information about measuring the volume of water in an aquifer. However, due to the irregular geological structure and composition of an aquifer, for myself, unless a measurement is taken every square yard -- and I would like it every square foot, but I'll go with every square yard -- a precise volume cannot be determined.

As far as nature replenishing aquifer levels, that level is very often responding to weather events in the last few years or up to 50 or more years. As rain falls heavily, the vast majority of it is not absorbed and becomes a flood condition. Precipitation falling slowly may soak in slowly or quickly, depending on things such as soil composition and plant life. Especially around here, plants will take all they can get.

The town's economy is important. Water to drink for all who live here is important. As a Navy brat, I have traveled quite a bit. I have observed and lived in a

great variety of areas. Not all towns become economic entities. It's just a fact of life.

Arizona has some renewable natural resources; sunshine is one, aquifers are not. I request that any renewable solar-based electricity-producing facilities built in Arizona be a photovoltaic system, which uses minimal amounts of water, and not concentrated solar power plants, which use many, many acre-feet of water.

CHMN. FOREMAN: Thank you very much.

MEMBER EBERHART: I have a question, ma'am.

Whereabouts in relation to the proposed power plant do you live?

MS. SELK: I live in the City of Kingman.

MEMBER EBERHART: Inside the City of Kingman.

MS. SELK: In the city limits.

MEMBER EBERHART: Thank you.

CHMN. FOREMAN: All right, very good.

Next, Robert Fenwick.

MR. FENWICK: My name is is Robert Fenwick, F-e-n-w-i-c-k. I live on Long Mountain out where this project is located at.

I want to talk about a number of subjects. First thing I want to talk about is the effluent from the wastewater plant. I spent half an hour, maybe longer, on the telephone with the man that is overseeing the

construction and will oversee how this plant is run.

He told me -- and I have the numbers from the meeting to back it up -- that the most this plant is capable of putting out at any one time is one million gallons a day. He said it will be a long, long time before we reach that capacity. There is no growth going on. This plant was planned for future growth. There is no growth. He says it will be years before they put out a million gallons of effluent a day.

Mr. Mundell, country boy, figured it out, that 327,000 gallons creates an acre-foot of water. Therefore, when you do that multiplication, pretty simple math, it's only three acre-feet a day running at full capacity, which only gives them a little over 1,000 acre-feet of effluent a year. There is no more. The man told me there will not be any more. That's as much water as they can produce, effluent as they can produce.

An acre-foot of that effluent is going to cost $2,100. 64 cents for 1,000 gallons, you multiply it by 3,200, it comes out to $2,100 for an acre-foot of water. I have to question, if an acre-foot of effluent is worth $2,100, what is an acre-foot of our fresh water worth? Four or five thousand dollars for an acre-foot of water? A lot of water, a lot of cost.

That pretty much takes care of effluent. The

next thing I guess I want to talk about is the county's general plan.

CHMN. FOREMAN: Excuse me. Member Mundell.

MEMBER MUNDELL: Do you want me to wait until he's finished or go by subject matter?

CHMN. FOREMAN: Please, I think it will go better if we allow each person to make their statement. And then if we have comments, we can make them afterwards.

MEMBER MUNDELL: Thank you.

MR. FENWICK: The county's general plan, 3.5 plan, calls for the fact that if our aquifer is in depletion or in subsistence, that all power plants need to be dry cooled.

I have an old EIS here that was done in 1981. Bentley and Gillespie did a big water study in the valley. In the water study, they said there is only 5,000 acre-feet being put back. This was 30 years ago. They said in the same study that this gentleman said that there's 15,000 acre-feet of water in the valley.

When you take the fact that we've been in a severe, severe drought for the last 10 years, the recharge is probably next to nothing or absolutely nothing, because we have no rain. We were four inches short this year of the rainfall that we usually get out here. So when you take the 5,000 feet of put-back and the 20,000 feet that

we're drawing out, because I have their own figures in their testimony here that says that they figure that we're taking 20,000 acre-feet of water out of our aquifer, we're 15,000 acre-feet a year short.

So somewhere in there we have to put the county's general plan into what they made the plan for and consider the 3.5 plan that the aquifer is in depletion and factor that into everything that goes on in this meeting.

I want to talk about dry cooling. In California, they have 35 of these plants under consideration now, under application, same as these gentlemen's project. In Nevada, they have a half a dozen. They have told the people in California -- and I don't agree with what they do in California, but they have told the people in California that if you want to make these plants, you have to dry cool them. The people in the Amargosa Valley up in Nevada have already said they're going to dry cool their plant.

So when these folks talk about the disadvantage that they will be at if they have to dry cool their plant, they won't be at a disadvantage. The playing field will be level, because the cost will be the same in California, Nevada, and Arizona. Because they will all be using dry cooling, and they will all be playing on a level playing field.

In their testimony in the book there that you all have, I have a page marked. They have no market for this power right now. That is their testimony in there. They have no customers. We're going to put up a $2 billion power plant, and we don't have anybody to sell power to. I'm not sure that's very good. I was a businessman for a long time, and I never tried to go out and spend too much money that I didn't have any use for a piece of equipment that -- I didn't have anybody to sell the power to.

When they talk about spending $2 billion, the mayor talked about spending $2 billion, we're not spending $2 billion in Mohave County. We are bringing $2 billion worth of equipment to Mohave County. We don't build mirrors in Mohave County. We don't build generators. We don't build those high-priced pipelines that they need for all of this stuff. They build it all overseas. The $2 billion is not even going to be spent in the United States, let alone $2 billion in Mohave County. They will bring that stuff here, put it up, somebody else will reap the profits from that.

They need to drill four wells, 1,800 gallons of water a minute to cool this plant. When they drill those four wells, because they're going to drill them, because they don't know how much effluent they've got, they already have all said that. They really don't know. They

drill those four wells, I have a hard time believing that they're going to spend $20 or $30 million to take effluent that they don't know how much they're going to get out to a plant out there when they have those wells in the ground. And if they get approval, they will keep pumping the water from those wells.

And I guess that kind of concludes -- oh, I have one other subject here. Mr. Victor wrote a letter stating that the current documents demonstrate that 43,000 acre-feet of water per year of groundwater will return to be physically and continually available for a 100-year period.

Now, I don't know much about math, but if you take 43,000 acre-feet of water out of our aquifer for 100 years, that means there's got to be 43 million acre-feet of water out there. There isn't 43 million acre-feet of water out there. There's 15 million acre-feet of water out there. So when he makes that statement and writes that letter that that's how much water is available for a 100-year period, that's not very good faith.

And with that, I thank you for your time. I know it's been a long day.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Thank you, Mr. Chairman.

Just so the record is clear, sir, you said you

talked to somebody. Could you tell us that person's name on the effluent?

MR. FENWICK: I specifically did not get that gentleman's name because I did not want to get anybody in any trouble. Jobs are tough to come by today. His first statement to me was, "I'm sure glad that somebody finally called me." He says, "I've been waiting for somebody to call."

MEMBER MUNDELL: Well, I thought you said in your testimony that he was in charge of the treatment plant.

MR. FENWICK: Yes.

MEMBER MUNDELL: Well, that would be pretty easy to figure out then. I'm just trying to make it easy on all of us.

MR. FENWICK: He did tell me that they would be able to figure out who gave you that information.

MEMBER MUNDELL: Okay. So we'll be able to figure that out by looking at the directory of the City of Kingman, I mean, if we want to play this game.

MR. FENWICK: It is in the city's letter to the people that that's how much effluent there is.

MEMBER MUNDELL: And just to clarify that, you're saying that this person told you that the maximum the facility will ever generate in effluent is a million gallons a day?

MR. FENWICK: Yes, sir.

MEMBER MUNDELL: Even with the expansion that may take place in the future?

MR. FENWICK: He said that is the capacity of this plant is one million gallons a day.

MEMBER MUNDELL: Okay. Were you here when the mayor testified?

MR. FENWICK: Yes.

MEMBER MUNDELL: So does that contradict what the mayor said.

MR. FENWICK: Yes, it does.

MEMBER MUNDELL: Okay. And just -- okay. Thank you very much.

CHMN. FOREMAN: Thank you, sir.

MR. FENWICK: Thank you.

CHMN. FOREMAN: Next is Joanna Mynar. I hope I'm pronouncing that correctly.

MS. MYNAR: Yes, you did. My name is Joanna Mynar. It's M-y-n-a-r. And I live in the same area as Robert did, right by Long Mountain.

I can pretty much see out my window where this solar plant is going to be, and there's a couple of issues. One is water, and I'm not going to go into that in detail because I know we have done that all day long. And Robert has definitely did a very good job of hitting

on a lot of things.

There are a couple of things that I have. Again, he also mentioned about buying the equipment. Again, I would prefer to see equipment that's going to be used, even if we are assembling it in a factory on site, to have it be bought in the USA, Arizona, Mohave County. We all know our nation is in a problem, and we're going to go overseas for this? I don't appreciate that.

The other thing is, again, who is going to buy it? We have an idea what states are. Well, then, let them put it in their backyard. Let them go dry cool. Why should we be the guinea pig or lose our resources for somebody else? If it came down to us losing our resources, at least let Arizonans take advantage of it.

There's another thing that came up where there's employment, which would be a lot of employment jobs. And it was mentioned about 1,500 people that will be working on construction and about 300 people that will be permanent positions. There is something in process between the county, the college, and the company to work out what is going to be needed for the construction people to know what to do and how to put this together.

I would be grateful to have these people have these jobs, but we're going to be in the same fix within three years after the plant is done. They're going to be

out of a job because it was construction and they don't have it again. We're going to be back to the unemployment situation.

This is not some -- it's a very temporary thing for the employment, and they keep saying they're bringing jobs in. It's a temporary -- it's a Band-Aid. It's not going to last. And the people that get the training that's going to come from our county, our community college, our state, they're going to be going to other states for jobs. And we just helped all of these other people, and we need it here. We need it here in our county and in our state, and I would like more of a guarantee on that.

The other thing is, again, the water. They're going to build the wells, get started, and if the numbers are correct and it comes to the particular point where you start building the pipeline and find out that that waste plant does not have the water you need, well, there goes that pipeline. I wouldn't put a $10 million pipeline in if I know I can't get it then. And then they would continue to use the well water.

And I'm very careful with my well. I don't want to see it go dry or collapse on me. Thank you.

CHMN. FOREMAN: Member Eberhart.

MEMBER EBERHART: Thank you.

Just to summarize your testimony, are you opposed to the plant or are you in favor of the plant or --

MS. MYNAR: I would like to see it completely dry cooled. I would like to see it dry cooled. That is one thing. I'm not totally -- I have seen some of the plants; they're not ugly. You know, I would prefer that it have the plant providing Arizona with electricity before it goes to California, Nevada. They have an opportunity to put it into their states just like we would have an opportunity to put it into ours, so let them put their own in and let them use their own. I was taught charity starts at home. They don't want to start at home.

MEMBER EBERHART: There was a proposed housing development, or is still on the books a housing development for much of this land. Were you opposed to that? Because that would have used a lot of water also.

MS. MYNAR: To be honest with you, I did not know until all of this had come about about that particular area of a housing development that far down.

MEMBER EBERHART: Thank you.

MS. MYNAR: That was not -- obviously, either I missed it or it was not broadcast as well or I would have caught it. And yes, I would have been opposed to it.

MEMBER EBERHART: Thank you.

CHMN. FOREMAN: Very good.

Next, James Estelle.

MR. ESTELLE: My name is James Estelle, spelled E-s-t-e-l-l-e. And I live very close to the proximity of the next plant that you're going to put up here by Albiasa. So I'm here to help these people with some sheer logic. I don't have a lot of numbers or statistics, but I've got a paper full of common sense.

A little over eight years ago, the same game was attempted on the Big Sandy by the Caithness Energy Company. I'm sure you guys may remember that in '02. If you can't, I brought the newspaper article for you. And you guys shot it down on the fact that it was going to substantially injure the aquifer.

In these eight years, not much has changed. But one thing that has changed -- there's two things that have changed. One is the level of Mead and Powell is the lowest it's been since I don't know when. So we know we're using more water than we're making.

And the other one is greed, pure unadulterated greed. Everybody is trying to pick up on this government money for these green projects. If you look at the map of the aquifer -- which I have here, too -- you'll see Red Lake is dead center in that aquifer. On the northern end of it is Mead. On the southern end of it is the Town of Kingman. When you start pumping water out of the middle

of that, just like a pond or a lake, the sides are going to recede. Kingman will be out of water eventually.

We can see this in the lakes and the depletion in it. Everybody is arguing over the Colorado River water. There isn't enough and all of the states want it. The depletion of our water for electricity is not logical, and history shows we can live with less or no electricity. Once the water is gone, so are the people, and there's nothing green about that.

As it stands, for the greed of many involved and to provide electricity to states, we must pump our aquifers and hope they don't deplete.

To water cool any power plant in the state named Arizona is criminal and foolish. Dry cool it or shut it down. It's apparent the politicians in Kingman didn't care much for the populus because they put the zoning through on that. I would like to know that my state stood behind me a little harder than the politicians of Kingman.

Thank you.

CHMN. FOREMAN: Bonnie Jean Bates.

MS. BATES: My name is Bonnie Jean Bates, B-a-t-e-s. I live in Dolan Springs. I haul water. I have a 500-gallon tank that I haul with my trusty little truck.

We live in a desert. Does anybody recognize

that? If they start pumping out water, it's going to affect everybody. They have alternatives. Of course, it's going to cost them more, but are they going to destroy our area because they want to save money? I don't have all of the facts and figures of all of these people that are so well prepared. I didn't expect to talk. And I just know that we need to be logical about this.

There is only so much water in this world, and we have this little bit. And last year at this time, where I live, I had already had six inches of rain. I have had half an inch this year. And so what will the rest of the year bring? We don't know.

I also belong to -- I can't say we belong to a group or association, because there's a lot of environmentally ill people out here and they suffer from multiple chemical sensitivities.

Today, I went shopping for my friend. She hasn't been in a store in 17 years. She can't get out of her truck and be near people or she would be here. She said, please take notes. She lives 12 miles south of this project and she has a well, and she's very concerned. Is there any pollution of the air from this? Aside from taking her water. She's on that same aquifer.

And it's a matter of life and death to these people. And I am very fortunate. As long as I'm not

around petrochemicals and pesticides, I'm okay. I can be with people. I can stand a little perfume. But most of them would just keel over or they would be in the hosp -- they can't go to the hospital. If one of her horses kicks her and she has a broken leg, she can't go. She can't be in a hospital. These people are very sensitive to what is in this environment and it's very important to them.

Another thing is when they bring the presentation out in Dolan Springs at our community center, the fact that all of this equipment is being built somewhere besides the United States, we need the jobs here. There's so many people that need jobs. I worked at the unemployment office for 30 years and went through different times. It was never this bad in 30 years that I worked there.

The way I read the information that they put up is basically, after they build it, there's about 30 or so people that are going to work there. But the main concern to all of us is the water. And I thank you.

CHMN. FOREMAN: Thank you.

John G. Ford.

MR. FORD: John G. Ford, F-o-r-d.

We have a lot of concerns, more concerns than we've talked about. The USGS study on the depletion of the aquifer, the Hualapai aquifer, was done, and our board

of supervisors, Gary Watson, Tom Sockwell, and Buster Johnson, including Ron Walker were present at this meeting, showing the depletion of this aquifer.

I am on the aquifer myself. I live out in that area. We're in Dolan Springs. I may not live right next door to this project, but we do live out there.

There's many issues there to be spoken about, more than just the water. You have pollution. You have -- we would like to know about this gas, the diesel fuel, biofuel that they're going to use. That was never mentioned in any meeting at all, and I've been to many of their public meetings. We've asked questions, but when you go to these public meetings, we get diversified answers. We get answers that maybe -- that suits them best.

I understand that these are special interest people, and this is what we people are fighting against is special interest people. We want our rights here in Dolan Springs and in Mohave County to be heard and say that we do not want this plant out here.

They say they're going to use Stockton Hill Road. That is absolutely -- I can't imagine them going through all of the stop signs and going through all of the trials and tribulations of going through downtown Kingman. They will be coming down Pierce Ferry Road. They deny that,

but that is not a true statement. They have to use Pierce Ferry Road, which is a school district. They'll be going past our school zone and everything else. It's a hazard to that little road. They're going to bring I don't know how many trucks down there, 2,000 or whatever they're going to bring. It's just an immense amount of traffic that's going to be dealt on our area. That adds to pollution.

That's another issue I have never heard about, this biodiesel fuel and the fossil fuel they want to use. I don't know. I have never heard this in any of their meetings, and all of a sudden you're talking about it.

You asked a question about 35,000 homes going in there. That's a fair question, but that questionnaire would be -- it would say to me would be this. That would be a long-term buildup, not a short-term. If we was to deplete our water, then our county -- the 3.5 rule would come in about our depletion of water that we cannot build --

CHMN. FOREMAN: I'm sorry. Whoever has the phone, please step outside. Please step outside.

MR. FORD: We're talking about outsourcing jobs to other countries. Most of the jobs here is going to be through the stimulus package. That's what we were told at one of the meetings is they're trying to borrow this money

from the stimulus package. We taxpayers will pay that bill also, which means our taxes and our rate will go up. Our president of the United States says that if these plants come in, our rates will go up. If we're not getting electricity here in Arizona in our area, why are we going to have our rates go up? And we've been notified by the president himself saying this.

What we're saying is we're tired of special interest groups coming in our areas, destroying our areas. The 35,000 homes, now, if they put this plant in, the same token, they still have plans to put 35,000 homes out there. They still have plans of doing this. There's other areas there where Mardian has -- he wants to build homes there. But the problem we have is Las Vegas is losing their dollars, losing their money. We are not going to get that influx of homes at this point in time, not until the economy comes back.

We feel that the people have to be heard, and the people are saying they do not want this plant out here. Other areas in the United States -- and it isn't because I don't want it in my backyard, if they would use technology to dry cool it.

And I'm not a genius on this subject either, but I do read about the problems we're having with our water in the United States of America, especially in our western

hemisphere. Scripps has done a study on us, and have we depleted our water system here in Arizona? Yes. Scripps has done a study on that.

I am not a hydrologist. Your hydrologist will give you the best answers. I take it studies are being done. And the USGS, when they came out and talked to the board of supervisors showing depletion of water, it has to be -- you have to go back and tell folks, do not put this plant in. There's other areas in the United States that these plants can go in.

If they were going to do this, I-40, they have a corridor called I-40 here in Mohave County, which says this is our industrial zone. We are now putting spot zoning into our areas, which is wrong. That's not what we were built for.

I'm a retired old man. I have to leave this country in a better place for my children and your children. And by depleting our water system, folks, you may sit up there and take this to heart, but some day when Phoenix runs out of water and wants our water, and they may do this because Phoenix is running out of water, too, we're running out of water here in America. That's drinking water. That's life.

Take this back to heart. The people here are opposed to it. Listen to them hardly and make a decision.

And I thank you very much.

CHMN. FOREMAN: Thank you.

Marie Leavitt.

MS. LEAVITT: My name is Marie Leavitt, L-e-a-v-i-t-t. And I live in Dolan Springs, Arizona, but I have 80 acres out there off Stockton Hill Road. And there's no Lucy Lane on your map, but my 80 acres is off of Lucy Lane.

I have neighbors. There are houses out there. The back of my property, there are several houses out there. That is the area that Kingman is expanding towards. That is an area that should be housing.

But having nothing to do with that, we have no water, and I resent -- and that's a very strong word, but I do -- I resent a company coming in and wanting to use our water for something that there is technology out there to not use the water.

We don't have enough water already. As many have said, we're in a horrendous drought. I have lived in southern Nevada and Arizona nearly all of my life, and that's many, many years, and I am aware of how low the lake is and the dam is and why. I would like to see things built out there that would be important to us who live here.

There is no benefit to this for us. They say

there will be some jobs. I wonder how many from Mohave County will actually be hired there. And when they do the construction, we don't have companies in Mohave County that can do that. I wonder how many will really come from Mohave County. I see almost no, no, no benefit to us to have that. It benefits only this company.

I am grateful when companies come in and add to our tax structure and add to our employment, but this company is not going to do that. It is only going to be detrimental to us.

Now, I'm speaking very personally because it's personally going to affect me and my 80 acres. I bought that so that I could have some retirement money some day. If I have no water, my property is worth zilch. And I am paying taxes already, quite heavily, in fact. I was surprised at my tax bill this year on those bare acreage. I had had my taxes frozen, I got a widow's benefit, I challenged it, and with all of the lowering, it was higher.

So we are benefiting from my property at this point, but we won't in the time that this is built. There is no benefit for us. There is only taking, taking, taking, and almost no giving. Why have a company come in that is just taking, and especially our important resources, and especially when there is technology that

can be done and not use our water.

Thank you for listening to me.

CHMN. FOREMAN: Member Noland.

MEMBER NOLAND: Thank you.

Ms. Leavitt; is that correct?

MS. LEAVITT: Yes, it is.

MEMBER NOLAND: Could you show me on that map, that slide up there, can you walk up there and just try to give me a general idea of where your acreage is, please.

MS. LEAVITT: Sure. Approximately -- this is Stockton Hill Road, and I believe this is Pierce Ferry; is that right?

MEMBER NOLAND: Correct.

MS. LEAVITT: And I am on that side.

MEMBER NOLAND: So you're up towards the BLM easement up there? Is that where your 80 acres is? By the power line? Do you see where that -- yeah.

MS. LEAVITT: Okay. Just approximately on the other side of Stockton Hill up there.

MEMBER NOLAND: Just up in that --

MS. LEAVITT: On this side of Stockton Hill Road.

MEMBER NOLAND: Okay. Thank you.

CHMN. FOREMAN: Harriet Pettit or Harley Pettit.

MEMBER MUNDELL: Could I ask her a question, Mr. Chairman?

CHMN. FOREMAN: Oh, I'm sorry. Sure.

MEMBER MUNDELL: Ma'am.

CHMN. FOREMAN: Mrs. Leavitt.

I'm sorry. Member Mundell.

MEMBER MUNDELL: Yeah, thank you. You said there were homes close to this proposed facility; is that correct?

MS. LEAVITT: Behind my property. My property runs 80 acres parallel to Stockton Hill, and there are homes behind my 80 acres there.

MEMBER MUNDELL: Okay. So how many -- give me the distance. I mean, a mile? A quarter mile? A half a mile?

MS. LEAVITT: From where?

MEMBER MUNDELL: Well --

MS. LEAVITT: From my property, they're right behind my property line.

MEMBER MUNDELL: Okay.

MS. LEAVITT: I have no idea.

MEMBER MUNDELL: I'm trying to understand how close the homes are to the proposed power plant.

MS. LEAVITT: I have no idea, because I can't find Lucy lane on there. They didn't put any streets on there except for the main ones.

MEMBER MUNDELL: I have to remember my sections

here. So your 80 acres are a rectangle? A square?

MS. LEAVITT: My 80 acres is a rectangle running parallel to Stockton Hill Road.

FEMALE VOICE: Are you north of Red Lake?

MS. LEAVITT: Yes, north of Red Lake.

MEMBER MUNDELL: So is it five or six miles away?

MS. LEAVITT: Probably, yeah.

MEMBER HOUTZ: Same aquifer.

MS. LEAVITT: Yeah, same aquifer.

CHMN. FOREMAN: Any more questions?

MEMBER MUNDELL: No. That's it.

CHMN. FOREMAN: Very good.

Thank you again.

Now, there's been a bit of an erasure here. I think it's Harley Pettit.

MR. PETTIT: My name is Harley Pettit, P-e-t-t-i-t, and I'm president of RAID.

This Hualapai mountain solar company, it started under a company that --

CHMN. FOREMAN: Could you tell us what RAID is, for those of us who --

MR. PETTIT: RAID is a political action committee, and it stands for Residents Against Irresponsible Development. Primarily, we deal with the city, but we've been asked to get in on this a little bit

because the city is involved.

This company that got this rolling here, like a lot of companies, has been in some financial woes here in Nevada and Arizona that has been reported in the papers. One of the projects in Golden Valley here has been a work in progress for several years and it's not completed. Of course, that's a sign of the times, probably. But there hasn't been any progress in that area for quite some time. And that's kind of a concern because the same principal in this solar project, we don't want to be looking at another uncompleted project. We don't need any uncompleted projects in the Kingman area, and Mohave County for that matter.

What it appears to be in the view of some is that it's kind of like a money grab to get things going again, get money financed for a project that may not happen.

The area where the plant is proposed there, Stockton Hill Road has flooded over and the road has been closed and for a period of several days in the past.

And the housing development that you asked about out there for 35,000 homes, that looked like a water grab of banking water. The entire population of the City of Kingman is around 28,000, and with the outlying area is probably 70,000, but that's spread out, my gosh, from Golden Valley, Dolan Springs, all these areas out here.

So it's probably not realistic that 35,000 homes would go out there. That's more than the population of the city limits of Kingman. And again, it looks like a water banking project.

So now that the water has been established for this project, there's talk about an effluent contract with the city, but it doesn't exclude using the aquifer, using well water for cooling.

And this is a -- water is a concern, like it's been expressed here before. All you got to do is look at Lake Mead, and Lake Mead is 50 plus feet down. And that's a lake out there that supplies water to, well, southern California among other places, but all the way down the line. And with the expansion in Las Vegas and the Henderson area over there, the aquifer went down even more. And there was quite a struggle about where the water was actually allocated and how they could get more water for Las Vegas at the time.

From time to time you hear government water figures and that they have done their scientific testing, but the results aren't scientific because they can't be proven. An aquifer, you can't tell, because you can't see it and you can't accurately measure its recharge. So when studies are said about, well, we have a study on the aquifer from the United States government, some of those

studies and reports are 20 years old at best. So they're 20 years old to start with, and they don't reflect and it can't be proven what the aquifer is going to do.

So this is just short and to the point, but that's the concerns that have been brought to our RAID committee. Thank you.

CHMN. FOREMAN: Member Mundell.

MEMBER MUNDELL: Good evening, sir. Are you aware of the dry cooling issue in California? I should have asked Mr. Estelle, I think that was his name earlier, but I missed the note there.

You are in this organization that's analyzed this issue, correct?

MR. PETTIT: Well, to the -- yes, to some degree, sure.

MEMBER MUNDELL: Are you knowledgeable of the dry cooling issue in California or not? If you're not, that's fine. I'll ask somebody else.

MR. PETTIT: Well, to some extent, but not a great deal, because this is Arizona.

MEMBER MUNDELL: Right. But he brought up California.

MR. PETTIT: I'm sorry. I got here a little bit late.

MEMBER MUNDELL: That's fine. I'm just trying to

make sure. I should have asked him the question, but I didn't, so I was trying to get it some other way, but --

MR. PETTIT: No, that's fine. But there's also the -- as far as I know, there's the other alternative they got out in Nevada off of Highway 95, way off, and that's photovoltaic.

MEMBER MUNDELL: We talked about a few of those things earlier.

MR. PETTIT: Again, I apologize for stepping in late. But yeah, we have looked at the issues, but the detail, we didn't go into that. I didn't go into other states or anything like that, because Arizona is where I'm concerned.

MEMBER MUNDELL: Sure. Thank you very much.

CHMN. FOREMAN: Member Eberhart.

MEMBER EBERHART: Sir, to get back to your testimony, or your statement earlier, when you started off you were talking about a company that had financial problems, but you never said the name of the company, so I wanted to clarify for the record. Could you --

MR. PETTIT: Okay. Well, again, in the papers it's been Jim Rhodes' company. And I don't know what the exact name of that, but the housing project or the project involving Golden Valley was Pravada, and the reported financial problems in Nevada that led to bankruptcy issues

and the giving of the property there and then the reorganization of Pravada.

MEMBER EBERHART: So you were alluding to the landowner, the company that owns the land, not the company that's in front of us today.

MR. PETTIT: Again, as reported, it was spearheaded by Jim Rhodes' company, and -- well, like it's been told to me, it's another layer. That this is a joint venture, so it's another layer that gets this thing kind of off of one company and onto another. And that's business. I understand that myself. But it's another layer. And it's a -- I guess lack of a way of better -- as a better way of saying it, it's kind of manipulative. But it's the principal, which is Jim Rhodes, he's involved in this. And his track record that's been noticed here hasn't been very good. But again, that's a sign of the times. It's just a matter of fact. It's not a reflection on him.

MEMBER EBERHART: Okay. I just wanted to clarify which company you were talking about when you started, so thank you.

MR. PETTIT: All right.

CHMN. FOREMAN: Thank you again.

Now I have a speaker comment slip from Dr. Jack Weidner, but there's no request to speak, so it's a

question.

MEMBER EBERHART: Does he want to speak?

CHMN. FOREMAN: I don't know.

MS. BENSUSAN: Jack, did you want to speak?

MR. WEIDNER: No.

CHMN. FOREMAN: I have another speaker comment slip from Candace Weidner. And she does not want to speak either; is that correct?

MS. WEIDNER: I could just read that, I mean.

CHMN. FOREMAN: Okay. But you have written something down here, and we'll give it to the court reporter and it will go in as a part of the record.

Okay. Then I have a speaker slip from a Celeste Irons.

Whoever has the cell phone that's on, please, step outside.

MS. N'MI IRONS: I'm Celeste N'Mi Irons, N-apostrophe M-i, I-r-o-n-s. And I'm from Dolan Springs.

Not all Dolan Springs residents are opposed to this plant. I'm aware of a number of people that are in favor of it. I'm in favor of it. My husband is in favor of it, although we would prefer a dry cooled plant.

We're confident of the company's ability to safely navigate Pierce Ferry Road and any other roads that need to be used. And we're aware that the electricity is

sold as a commodity, and it's irrelevant to say that the electricity won't be used here. It's sold as a commodity and it will be sold on the open market to be used by whoever buys it. Thank you.

CHMN. FOREMAN: Very good, thank you.

All right. Those are all of the slips that I have. Thank you all for coming. The hearing itself will resume tomorrow at 9:30.

MEMBER HOUTZ: Mr. Chairman, just so the people know, there is 1.4.1 quadrillion acre-feet of water on the earth. That was figured out 20 years ago, and I don't know what a quadrillion is.

(The Public Comment Session concluded at 6:56 p.m.)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, MICHELE E. BALMER, Certified Reporter No. 50489 for the State of Arizona, do hereby certify that the foregoing printed pages constitute a full, true and accurate transcript of the proceedings had in the foregoing matter, all done to the best of my skill and ability.

WITNESS my hand this 15th day of January, 2010.

Michele E. Balmer

MICHELE E. BALMER
Certified Reporter
Certificate No. 50489