UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Office of Energy Projects

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Eagle Crest Energy Company : Docket No. P-13123-002

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EAGLE MOUNTAIN PUMPED STORAGE

HYDROELECTRIC PROJECT

Public Scoping Meeting

University of California

at Riverside

Palm Desert Graduate Center

75-080 Frank Sinatra Drive

Palm Desert, CA 92211

Thursday, February 3, 2011

The public hearing, pursuant to notice, convened at 6:52 p.m. before a Staff Panel:

KENNETH HOGAN, Project Coordinator, FERC

JOE HASSELL, Environmental Engineer, FERC

STAFF CONSULTANTS/PRESENTERS

JOHN HART, Project Coordinator & Hydrologist,
Louis Berger Group

TYLER RYCHENER, Terrestrial Scientist & GIS,
Louis Berger Group

ALISON McDOUGAL, Cultural Resources Specialist,
Louis Berger Group

GLEN LEVERICH, Geologist and Groundwater Hydrologist,
Stillwater Sciences

JEFFREY G. HARVEY, Ph.D., Principal & Senior Scientist
Harvey Consulting Group, LLC

ATTENDEES AND PUBLIC COMMENTERS
(in order of introduction)

MARGIT CHIRIACO RUSCHE, Attendee/Observer

GINGER GILLIN, Project Manager, Environmental Permitting,
GEI Consultants and Eagle Crest Energy

RICHARD SHATZ, Hydrogeologist, GEI Consultants

ALICE KARL, Biological Consultant, Eagle Crest Energy

TERRY COOK, Kaiser/Eagle Mountain and Mine Reclamation

WAYNE DYOK, Tetra Tech

ANDREA COMPTON, Chief of Resources, Joshua Tree National Park

BILL KEESE, Advisor to Eagle Crest Energy

DOUG DIVINE, CEO, Eagle Crest Energy

STEVE LOWE, President, Eagle Crest Energy

RENEE CASTOR, Chairman, Desert Center Chamber of Commerce

ATTENDEES AND PUBLIC COMMENTERS (CONT'D.)

SKYLER FRAZIER, Member, Desert Center Chamber of Commerce

STEVE JONES, Attendee/Observer

VICKY JONES, Attendee/Observer

JOHN BEECH, Attendee/Observer

PAUL MURPHEY, Geologist, State Water Resources Control Board

SHARON MEYERHOFF, Attendee/Observer

ELIZABETH MEYERHOFF, Attendee/Observer

K. KAUFMAN, Reporter, The Desert Sun

KANDARP PATEL, Engineer, MWH

JIM LINDELL, Engineer, MWH

SIMON BLUESTONE, Geologist, MWH

ALLISON SHAFFER, BLM Palm Springs Southwest Field Office

YSMAEL WARINER, BLM Palm Springs Southwest Field Office

PETER GODFREY, Hydrologist, BLM California Desert District

PHILIP HU, Attendee/Observer/Landowner

PAT BEECH, Attendee/Observer

PALM DESERT, CA - THURSDAY, FEBRUARY 3, 2011 - 6:52 P.M.

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MR. HOGAN: Okay. So we have a special request by a member of the public to make some comments. She can't stay for the entire meeting. So we're going to accommodate that. Margit.

MS. CHIRIACO RUSCHE: Thank you very much.

I just wanted to appear briefly. Of course, it would be hard to say no to hydroelectric. It is a good, clean way to create power. But I have a real issue with this project. I was here two years ago. I had the same issue. There is no solid agreement with the landowners. I just can't conceive that we're spending this kind of money to look at it and, you know, try and regulate it, and all these other things, without having a real contract or even an MOI with the landowners. It bothers me that that is not done.

I want that to remain -- I believe I made pretty much the same comments two years ago, and that is what I want to say today to everyone. It concerns me. We're spending money here for you all to come out, for us to come down, for these gentlemen that are working really hard on the project. How do you go forward? It's like putting the cart before the horse. I'm just an ordinary person, though.

So thank you very much for allowing me this special time.

THE REPORTER: Should we go back off the record?

MR. HOGAN: Appreciate you making it out tonight.

Okay. We're just going to give a couple more minutes to let folks come on in.

(Off the record from 6:53 p.m., until 7:06 p.m.)

MR. HOGAN: Okay. Why don't we go ahead and get started. I'd like to thank all of you for coming out tonight. We're here to discuss Commission staff's draft environmental impact statement for the proposed Eagle Mountain Pumped Storage Hydroelectric Project.

This meeting is really for you all to tell Commission staff whether or not we've addressed all of the issues and concerns that you have, or if we've raised new issues or concerns that you may have, where we've gotten things wrong, and where we've gotten things right. So I don't want to occupy too much of our time with the formalities of FERC staff, and Eagle Crest is going to give a presentation on what the proposal is, and we're going to do a very short presentation on how our recommendations deviate from their proposal. But the majority of the meeting is really to hear public input on our document and our recommended project, or our project as recommended in the draft EIS.

So with that, I'd like to first go around the room and do some introductions of everybody. My name's Ken Hogan.

I'm a fishery biologist by training. I work for the Federal Energy Regulatory Commission, and I am the Project Coordinator for the Commission for this project.

MR. RYCHENER: My name's Tyler Rychener. I work for Louis Berger Group, and we're a consultant with FERC.

MS. McDOUGAL: My name is Alison McDougal. I also work for the Louis Berger Group, a consultant to FERC.

MR. LEVERICH: My name is Glen Leverich. I'm also a contractor to FERC.

MR. HASSELL: I'm Joe Hassell. I'm an environmental engineer. I work for FERC. I work mostly on the economics, the water resources, and the engineering part of the draft EIS.

MR. HART: And I'm John Hart, and I'm (unintelligible), and I'm a hydrologist.

MS. GILLIN: I'm Ginger Gillin. I'm the Project Manager for the environmental permitting for Eagle Crest Energy.

MR. HARVEY: Jeff Harvey, Project Director for Eagle Crest Energy.

MR. SHATZ: Richard Shatz, GEI Consultants, Hydrogeologist.

MS. KARL: Alice Karl, biological consultant to Eagle Crest Energy.

MR. COOK: Terry Cook. I'm a Vice President of

Kaiser Eagle Mountain, LLC, and of Mine Reclamation, LLC.

MR. DYOK: Wayne Dyok, Tetra Tech. I'm a consultant to Eagle Crest Energy.

UNIDENTIFIED MALE SPEAKER: I'm just a Canadian citizen here just to see how you do things.

(Laughter.)

MS. COMPTON: Andrea Compton, Joshua Tree National Park, Chief of Resources there.

MR. KEESE: Bill Keese, advisor to Eagle Crest.

MR. DIVINE: Doug Divine, CEO, Eagle Crest Energy.

MR. LOWE: Steve Lowe, President of Eagle Crest Energy.

MS. CASTOR: Renee Castor, Chairman of the Desert Center Chamber of Commerce.

MR. FRAZIER: I'm Skyler Frazier, and I'm just a member of the Desert Center Chamber of Commerce.

MR. JONES: Steve Jones, a resident at Lake Tamarisk, just ten miles from the project.

MS. JONES: Vicky Jones, another member -- I mean, resident.

JOHN BEECH: I'm John Beech, also of Desert Center.

MR. MURPHEY: I'm Paul Murphey. I'm a geologist with the State Water Resources Control Board.

MS. S. MEYERHOFF: Sharon Meyerhoff, an observer.

MS. E. MEYERHOFF: Elizabeth Meyerhoff, an

observer.

MS. KAUFMAN: K. Kaufman. I'm a reporter with the Desert Sun.

MR. PATEL: Kandarp Patel. I'm an engineer with MWH.

MR. LINDELL: Jim Lindell from MWH, consultant to Eagle Crest.

MR. BLUESTONE: Simon Bluestone with MWH. I'm a geologist.

MS. SHAFFER: Allison Shaffer, BLM, Palm Springs Southwest Field Office.

MR. WARINER: Ysmael Wariner, BLM Palm Springs also.

MR. GODFREY: Peter Godfrey, BLM, California Desert District, Hydrologist.

MR. HU: Philip Hu, landowner -- affected landowner, I should say.

MR. BEECH: Pat Beech, observer.

MR. HOGAN: Thank you. Just a couple of notes. There's restrooms straight across the hall here. If anybody needs to go, don't have to ask permission. Just get up and go.

With that, I'd like to start off with having Eagle Crest Energy provide an overview of what their proposed project is.

Oh, and -- yeah, the meeting is being recorded by a court reporter. Everything that's said here today, good and bad, will be part of our public record, and used to help inform our final EIS, environmental impact statement.

MR. HARVEY: Good evening. Thank you all for coming. My name's Jeff Harvey. I am the Project Director for Eagle Crest Energy. Just a brief presentation about what the project is, why it's being proposed, and just a few conclusions about the Federal Energy Regulatory Commission's preferred alternative. Then I'll turn it back to the Commission for your comments.

Just in a nutshell, this is what the project looks like and how it works. In this case, we'll be using two mining pits, one for the lower reservoir, one for the upper reservoir, connected by a tunnel system -- about 11,000 foot long tunnel system, 29-foot diameter, with a huge powerhouse inside of the tunnel system, within the powerhouse, four reversible turbines, 325 megawatts each, for a total of 1300 megawatts. The lower reservoir east of the eastern mining pit will be filled with water, that water then pumped up into the upper reservoir, where it's held in storage, and when needed, that water dropped again back down to produce electricity, and returned to the lower reservoir.

So after the initial fill of water, water's just a working fluid back and forth here, with some losses for

evaporation and seepage that will require annual makeup. But an initial fill, and then that much smaller amount of makeup water.

Like I said, it's 1300 megawatts of generation capacity. This is what we call a brown field development, meaning that it is being developed inside of a previously industrially developed site, in this case, the Kaiser Iron mine. Because it is inside the previously mined lands, there is no aquatic habitat, no fish, no aquatic recreation. Very unusual for a hydroelectric project to have those kinds of features.

The location here is very close to -- about ten miles north of the major transmission corridor that serves Southern California. It is also within the region that is being proposed for significant development, approved for significant development for solar power, and of course the existing wind power farm at San Gorgonio Pass.

I-10 corridor, Palm Springs, Indio, we are about right here, Desert Center, and then Blythe and the Colorado River, the Arizona/California border, just north of Desert Center about ten miles, here's the project site itself. On this map, the yellow in outline is Joshua Tree National Park, and then BLM lands and private lands on the remainder of the coloring there. It'll be a little closer here.

Again, where the project site is, purple in this

case for national park lands, the beige for BLM lands, and white for private lands, state school lands in blue. The eastern pit here is where the lower reservoir would be, connected by the tunnel system, underground powerhouse, and upper reservoir or central mining pit out -- let's see -- well field here that will bring the water in for the initial fill. One, two and three wells. This pipeline, of course, will be underground, but shown here so you can see the alignment of it, following parallel to an existing transmission line corridor. We tried as much as we could to collocate the utility systems. Then along Kaiser Road and right into the lower pit or lower reservoir for the initial fill.

Coming out, then, in the yellow line here, from the powerhouse that's down underground, about 1500 feet underground -- or as much as 1500 underground -- the transmission line comes to the surface switch yard, and then out across the Colorado River Aqueduct, which is the water conveyance owned and operated by the Metropolitan Water District, their pumping works here, and part of the railroad associated with the historic mining, and right down Eagle Mountain Road, then, again, collocated with an existing roadway, originally to come down here. This is the I-10. This is the 177. Sorry. Should've pointed that out before.

Originally intended to come right down here to the I-10 to interconnect with the transmission grid. Bureau of

Land Management advised us that there were sensitive cultural resources here associated with Patton's -- General Patton's World War II training -- desert training center. So we instead took the transmission line over into Desert Center. At this time, when the project was first proposed, the California Independent System Operator and Southern California Edison indicated to us that the final alignment for the transmission interconnection would be north of the I-10, they believed, and that our project would -- should -- would need its own substation switch yard interconnection point, which is why we went here. That is now changed, and you'll see that reflected in FERC's selected alternative.

This is what the mining pits look like that will be adapted for use as, in this case, the upper reservoir site. The lower reservoir site, you can see the mining pit here, and the stair step pattern down to the bottom of that, these tailing features around the outside of that, and part of the Eagle Mountain town site.

Another angle on that same pit looking west right up along the access of the pit, more of the Eagle Mountain town site, and the tailings features here. You get an idea of the magnitude of this mine site and what it is that we're proposing to develop.

This is out in the desert. Lake Tamarisk is right here, the 177 here, so we're looking about due west. The

transmission line alignment, you can just make out that little bit of a trace right there is the transmission line alignment that we will take our water line parallel to. Then it picks up Kaiser Road and goes right up into the lower pit in the Eagle Mountain Mine here. It gives you an idea about what this environment looks like. Part of the airport that was developed for Patton's use in World War II, later became a county airport. County subsequently sold it, and now it has been developed. This picture is not recent enough to have caught the racetrack development, which has happened in the last year, that now occupies this site. The well locations will bring water up to that pipeline. So it gives you an -- oh, the other thing to note here is, in the '70s and '80s, there was a significant boom in agricultural production for jojoba in this region. Like you can see in this picture, there is still some agricultural production out here, but many more lands that have been out of production now for decades.

Why is this project needed, and what purpose will it serve in California? This is from the California Energy Commission, and shows energy demand in California 1990 to 2020 projected. It gives you an idea that energy demand is going up constantly. At the same time, we're losing some power plants to -- for example, some coastal power plants, approximately 50 percent of those, are expected to close as

they get too old to be repowered or too expensive to repower because they're no longer able to use once-through ocean water cooling systems. There are new rules about import of coal-fired power into the State of California that prevent us from bringing any more coal-fired power into the state, unless it can meet certain greenhouse gas requirements that no coal-fired power in our region does meet right now.

So there are a number of ways that our power -- the ability of power -- power generation resources are declining at the same time that we have this increase in demand, and hence the drive for multiple sources of new power.

One of those, as everyone in this room living in this desert region is aware, is for development of renewable energy power, the existing wind power plant, and as it gets repowered with multiple next-generation wind turbines, but particularly in recent years the solar power development that has been approved. This is in response to state mandates for 20 percent of our energy to be renewable by 2010, last year. We only made it to about 11- percent. The new mandate now is 33 percent, one third of all our electricity, generated by renewable resources, principally solar, wind and geothermal, by 2020, nine years away. That's going to be quite a challenge to make, and there are a lot of people working to do that, and obviously for multiple reasons.

I've listed some here. Reducing dependence on

imported energy sources is a big one. Another one is to have renewable sources that reduce generation of greenhouse gasses.

Problem with these renewable energy resources, particularly wind and solar, is that they're intermittent. They don't generate on demand, and they're subject to when the wind is blowin' and when there's not cloud cover, and the sun is shining. So because they are variable, and we need constant power, there's a need for backup generation for wind and solar particularly, these intermittent sources. Backup generation, which right now is provided by peaking power plants, natural gas, fired, simple cycle peaking power plants, and that can be provided -- well, it can also be provided by hydroelectric power -- definitely can be provided by this project and by energy storage. And that's what this project is all about is making it possible to have that level of renewable energy intermittent energy sources as part of our total generation makes -- and still maintain reliable transmission grid operations and all of our peaking power demands.

I mentioned that these are intermittent sources. The California ISO, the Independent System Operator, responsible for operating the transmission grid in California, tell us that as much as 70 percent of wind power is generated at night and weekends, off-peak periods.

Twenty-eight percent of solar, just the two days out of seven is weekends, for solar, which is off-peak, so other times when that renewable energy is not available during peak periods and could be captured off-peak.

They also don't necessarily meet peak periods of demand, these energy sources. They cannot be simply dispatched on demand, at will. You can't say, well, I need 1300 megawatts of wind power; turn on the wind power. That's not the way the wind works, and not the way that solar works either.

Just to give you an idea -- well, let me just go through this first. What this project can do is store that off-peak energy, not only from renewable sources, but from all sources, and have that available to generate energy when and how it's needed, in the volume that it's needed. So just generation capacity is one big feature of what the project provides.

It also provides -- I mentioned peaking power, but more importantly, what storage allows you to do is regulate the transmission grid system and operate it to maximum efficiency. Those features are called voltage regulation. We have to have 60 megahertz of power at all times. We don't have the power going up and down. Our lights aren't flickering. We have constant power, and that's done with what's called voltage regulation to moderate what happens

with those intermittent resources. We have to have power sources that are available to come online on demand, and to follow as demand goes up, and generation goes down, to match those. That's referred to as spinning reserve, that power availability and load following the function that it does.

Storage is one way I mentioned. Peaking power generation is another way. Pumped storage hydroelectric power is the only proven technology to provide this kind of energy storage backup to the system that is at this utility scale, 1300 megawatts. This project would be able to generate the full 1300 megawatts of generating capacity for up to 18 hours.

There are some other storage technologies, principally batteries, that are on the order of more of five megawatts. You could have a lot of 'em, but really not -- and -- and they're on the order of 15, 20 minutes of dispatch time with a fully charged battery, nothing on the order of what the utility scale for this project is. Fly wheels and compressed air, not really proven technologies, and definitely not at this scale, but may be emerging technologies in the future.

Just to give you an idea, this is, again, from the California ISO. This is their data and their graph. This is at one of the windiest places in the state, one of the windiest months in the year. It shows you what they are

looking at as they're planning for 33 percent of energy coming from renewables, and much of that from wind. How do you manage this when you have so much wind at night and early morning, and it drops right off? You have wind that's high all day. You have days with no wind. You have days that go up and down. This is 30 days showing up.

That gives you an idea that, while you could calculate this average, then you ask the question, how would you predict this, and how would you plug this in for managing your system the next day ahead without substantial backup power?

Same thing for solar. Nighttime, sun starts to come up, solar power ramps right up, stays high throughout the day, peaking around noontime, and then sun starts to go down, and it's off.

But here's what our peak demand for electricity looks like with peak demand as everyone's getting off work, and getting home, and turning on things all over your house, for example. So that gives you an idea that solar power peak, as great as solar power is as part of our generation mix, and as essential as it is, it is not effective for managing the transmission grid and for providing for those peak loads that have to therefore be provided by other sources.

This is a little bit complicated. I won't try to

sort the whole thing out. But again, the Cal ISO is the source of this. What they're showing is with 20 percent wind and solar, here's what that looks like to have solar power in, to have wind power in, and where do you have to have extra power so that you can match this system to actual demand? Very significant, 2,000 megawatts of need in this shoulder, for example.

That's another point to make. Our project, at 1300 megawatts, will satisfy a big part of California's need for storage and peaking power capacity, but it will not satisfy all of it, by any means. The state will need multiple other projects in addition to this project.

This isn't just our story. The only reason I include this -- and I'm not going to read it off, but the only reason we included this slide is to demonstrate that the need for storage is recognized throughout the electric utility and energy planning industry -- U.S. Department of Energy, California Public Utilities Commission, California Energy Commission, the California Independent System Operator -- throughout, nationwide, storage is recognized as essential to being able to integrate this high a level of renewables and meet those other goals for offsetting the greenhouse gasses and for reducing our dependence on other sources of energy.

Everything about FERC's EIS is for FERC to talk to

you about, or for you to talk with FERC about. The only thing I'm going to say about this is that, from our perspective, the primary elements that are different than what I've shown you in our proposal is that FERC has recommended a transmission alignment that collocates with the existing transmission line parallel to our water pipeline. I'll come to that in just a minute on a map. And it avoids a desert wildlife management area. This is for desert tortoise. It also minimizes effects on the Desert Center community by not coming down Kaiser Road, but rather, going north -- Kaiser Road and then north of Lake Tamarisk, following that existing transmission line, and then south to the new substation to be located on the south side of I-10, as that is now worked out.

They have also enhanced some of the water supply and water quality mitigation monitoring, and made a comprehensive monitoring and management program for water quality and water supply.

The only thing I would say about those changes are that we accept and concur with those changes, and we do not have any -- we don't -- we don't contest what FERC has recommended.

This, again, to show you here, is the project site transmission out as we had originally proposed it. Actually, this is what we had originally proposed. This was for a

possible substation south of the I-10. This is the I-10. Here's the 177, Eagle Mountain. We had originally proposed coming here. Because the substation and alternative substation site was located here, we looked at coming straight down Eagle Mountain Road. This is parallel to Eagle Mountain Road. The eastern substation site has been determined -- we believe -- there's no final decision about this, which is why I have to hedge a little bit -- but our understanding is that this is the less sensitive site. This has desert tortoise on it. This either doesn't or much less so.

So there were two alternatives that were looked at to get there. One was to come along Kaiser Road here, and then down Kaiser Road all the way past the Lake Tamarisk community, and across the 177, parallel to the I-10, and then drop south to the new substation. FERC's preferred alt- -- and this is the desert wildlife management area is all of this area in here. We went right through the middle of it with our first proposal, and in consultation with Fish & Wildlife Service, looked at these alternatives.

FERC has now selected the alternative that brings transmission out and to Kaiser -- where it crosses Kaiser Road to pick up the existing transmission corridor, the same one that our water line follows, and then comes all the way out, and then when it gets just north of the Red Bluff

Substation, drops down due south to -- for that inter-connection. It's a longer route than what we had proposed, but definitely better in terms of environmental sensitivities for tortoise, and better for sensitivity for land use in the Lake Tamarisk community out here. So we embrace that alternative and accept FERC's direction on that.

That is it for my presentation. Thank you very much. Shall I take questions if they have 'em about project specifics? -- not about the EIS, not about environmental issues, but anything about the project that I can answer? John?

MR. BEECH: Yes. I was --

THE REPORTER: Wait a second.

MR. HOGAN: We have to record so that it becomes part of the transcript.

MR. BEECH: My name is John Beech, from Desert Center.

We had talked earlier about some of these numbers, and I just wanted to bring them up again right now, because it would give us a sense for the size of the project, and also relative to how much water you might be using. So my first question is, you're talking about 1.3 gig energy for the project, which I think is about -- it's estimated to be enough power for about 400,000 homes, give or take. What would that number be, approximately?

MR. HARVEY: I don't have a rule of thumb like that that I keep in my head. Anybody?

UNIDENTIFIED SPEAKER: (Indiscernible; not at microphone.)

MR. BEECH: Oh, you're saying more than one million homes, you think? Okay. Well, the reason I wanted to get that number is because if we're talking potentially 1800 acre feet of water a year for evaporation once the project's operating, rule of thumb, that would be 1800 homes perhaps, one acre foot per home. But to offset that, you would be generating power that could serve one million homes. You see? So you can get a sense of the balance of how much water's taken versus how much electricity's produced.

Then one other point that we discussed about a week or so ago. That was during the time that you're filling, the three years of fill, you're talking, I believe, 8,000 acre feet per year?

MR. HARVEY: That is correct.

MR. BEECH: And then during the time the jojoba farms were operating back in the late '70s and '80s, it was quite a bit more water was taken each year, wasn't there?

MR. HARVEY: I believe it was about three times that amount.

MR. BEECH: Okay. So your fill is expected to be about one third the amount of water that was taken back in

the '70s and '80s. And then the recovery period for the aquifer was something like 10 or 15 years for that amount of water that was taken.

MR. HARVEY: Mostly it has recovered. What you've said is correct. Although I want to be clear that the volume per year was about three times greater than ours, but theirs went on for many more years.

MR. BEECH: Correct, about ten years.

MR. HARVEY: (Indiscernible; speaking simultaneously.)

MR. BEECH: Yes.

MR. HARVEY: Right.

MR. BEECH: Okay.

MR. HARVEY: We would only have the three or so years for the initial fill, and after that it would be simply the annual makeup water.

MR. BEECH: Okay. So the --

MR. HARVEY: There are three wells for the initial fill.

MR. BEECH: Right.

MR. HARVEY: We'll only need one well thereafter. We'll keep two so we have one as a backup when one's either out of service or down for repairs and maintenance.

MR. BEECH: But the point you're making is that, even though the water might be one third the quantity taken

on an annual basis during the period of the fill, the jojoba farms were in operation for maybe three times longer than your period of fill.

MR. HARVEY: About three or four, as I understand it, that's correct.

MR. BEECH: Okay. Thank you. The reason I wanted to discuss these numbers was to try to get a feel for the relativity of earlier usage to your projected usage now, and get some meaning to that other than just numbers, which are sometimes hard to relate to reality. Thank you.

MR. HARVEY: Thank you. John, the gentleman behind you had a question.

MR. HU: Thanks. Philip Hu, Desert Center landowner.

Just a quick question. Is this a proven technology? Are there existing plants in the U.S. that do the same pumped storage?

MR. HARVEY: Yes. Pumped storage is an old technology, and it is used throughout the world. What I've heard, 462 --

UNIDENTIFIED MALE SPEAKER: Three-fifty worldwide, and 40 in the U.S.

MR. HARVEY: So 350 pumped storage plants worldwide, and 40 in the United States. Castaic Lake is pumped storage. San Luis is pumped storage. There's pumped

storage capability at Oroville. The Helms Project that operated by PG&E in the State of California is a pumped storage plant. So, yes, there are multiple.

MR. HU: Well, compared to other technologies -- I mean, I'm not an engineer, but how would you rate its efficiency compared to other power producing plants out there?

MR. HARVEY: Highly efficient. It's about 80 percent efficient on power generation compared to power needed to pump the water up.

MR. HU: Well, that was my third question is power to pump the water up. What powers that?

MR. HARVEY: Power that we would purchase from the grid, and it could come from multiple sources. The State of California has us modeling that as the least cost marginal source of power that's available at night, which is combined cycle natural gas-fired power in California.

MR. HU: So the power that it takes to pump -- the total power it takes to move the water to the top isn't essentially equivalent to the amount of power that you're drawing from the plant anyway?

MR. HARVEY: You only get 80 percent as much power out as you put in. So it takes 100 percent of power to pump up, 80 percent of power generated on the way back down. That's true of any energy system that you have. You don't

recover all of the energy that you store.

MS. CASTOR: To add on -- I'm Renee Castor. To add on to John's question, when you were doing number comparisons, what's the -- did you guys happen to get an annual usage of what Lake Tamarisk itself uses per year in water?

MR. HARVEY: I'm told by Joe Hassell from FERC that it's about a thousand acre feet per year.

MS. CASTOR: Okay. So it's a thousand acre feet per year. And a point that I was asked to bring to you as a question was, there are some people who feel -- you guys were talking when we met last time that there was a -- you were looking into a 50-year lease. Some people are under the conception that the only reason it's a 50-year lease is because you expect that we're going to run out of water in 50 years. Can you give the facts to that statement?

MR. HOGAN: The reason they're looking for a 50-year license -- is this working better? -- is the Federal Power Act provides the Federal Energy Regulatory Commission with authority to issue licenses for 30 to 50-year terms. Historically, for new construction projects, the Commission has generally issued 50-year term licenses. Then on relicensing, when the project license expires, and they want to come in for a renewal, we look at a term less than 50 but more than 30. We're not -- on a relicense, we can't issue a

license for less than a 30-year term, and that's mandated by Congress.

MR. HARVEY: Renee, you asked about whether or not that would deplete the water in that same period of time.

MS. CASTOR: Right.

MR. HARVEY: The answer is no. What we've calculated, the Department of Water Resources says that there are approximately 15 million acre feet of water in storage in the basin. Our total water demand would be 116,000 of that, which is .07 percent of the total water in storage. That does not include any recharge.

MS. CASTOR: In its lifetime?

MR. HARVEY: Over the lifetime of the project, the 50-year lifetime of the project, we would use less than one percent of the water in storage. Again, that's not accounting for any recharge to the system.

MS. CASTOR: Thank you.

MR. HARVEY: You're welcome.

Any other questions about the project? Steve?

MR. JONES: Hi Jeff. Since you don't have permission to -- my name's Steve Jones from Desert Center -- permission to use the property that you're talking about, has any other alternative site ever been chosen or looked at or thought about?

MR. HARVEY: Yes. We've looked at multiple other

potential sites. It's almost impossible to find sites that are brown field sites like this, that have mining pits of adequate size to use for reservoirs, that are elevation differential that would give you the kind of power generation that we're talking about, and that are located close to a transmission grid, and that have those minimal environmental sensitivities. So this site is pretty unique. It's not simply a matter of flying around the desert and saying, there's another one, there's another one, there's another one. It's very rare to have a site like this.

MR. JONES: Well, it wasn't so unique for a landfill to be put there. They had extreme environmental problems with it. So I don't understand why you would not have any problems.

MR. HARVEY: Landfill operation is very different than a power --

MR. JONES: Yeah, but it's the animals that are there and what have you, disturbing them. I don't know. I don't see that it's a good thing.

MR. HARVEY: Well, we do -- I -- I'm going to let FERC address -- they've done analysis of what the wildlife issues are there, and what other mitigation measures are required to address those. But just in a nutshell, we do recognize that there are some wildlife values, even in that core area, the mined area. We've done extensive surveys and

biological analysis. There's extensive mitigation that FERC has formulated or adopted as it was proposed to address biological resources on the water line and on the transmission line linears. Those are the three elements of the project are the two linear systems and the core area.

Most of our works are deep underground, the tunneling system and powerhouse. Obviously, no wildlife impacts in that regard, except for construction period noise and disturbance that will cause some effects.

MR. JONES: Did you think about maybe Lake Mojave as one of your lower lakes and Lake Mead as your upper lake, and put your system under that?

MR. HARVEY: I'm not sure how you --

MR. JONES: The Colorado River water, you'd just be using it temporarily --

MR. HARVEY: (Indiscernible; speaking simultaneously.)

MR. JONES: -- wasting it or using it --

(Indiscernible; Mr. Harvey and Mr. Jones speaking simultaneously.)

MR. HARVEY: -- being fully used and it's being fully utilized for power generation.

MR. JONES: Right. But you could also pump it back up to Lake Mead, just like you're doing with this project. Exactly the same thing. There's plenty of room there.

MR. HARVEY: Right. Room for storage of water in Lake Mead?

MR. JONES: Yeah. Well, most of the time there is.

MR. HARVEY: Unfortunately, there is. That is not feasible for us, though, to take a federal power dam and retrofit it with reversible turbines and --

MR. JONES: Well, it wouldn't -- I mean, something other than that, alongside of it could be -- a tunnel alongside of the river.

MR. HARVEY: We have not studied the feasibility of that.

MR. JONES: Yeah. It'd be a better project to me. It wouldn't be taking somebody's water. You'd just be using the water.

MR. HARVEY: Appreciate that.

MR. BEECH: John Beech from Desert Center.

You'd mentioned that it's approximately 80 percent, and I thought 80 to 84 percent recovery. So you'll use a certain amount of power to pump the water up, and then you'll recover less than that as it flows down again.

MR. HARVEY: That's correct.

MR. BEECH: Okay. But there's a couple of things here. One is the pumping up is done at night, isn't it? Isn't that the plan? Because that's when --

MR. HARVEY: It's done during the off-peak periods.

It will be primarily nighttime, but also could be weekend hours. That's correct.

MR. BEECH: And being off-peak, the power is somewhat less expensive, so that economically you can make it work. But I think there's another point that hasn't been brought out yet, and that is that the electricity that is available from your project will make it unnecessary to obtain that same electricity from a more polluting source.

MR. HARVEY: Well, that's a very good point. The peaking power generation and ancillary services, the voltage regulation, spinning reserve, load following, all of those are otherwise produced by peaking power plants that are natural gas peakers that all have gas emissions and greenhouse gasses. In this project, we have the pumped back power, but on the way back down, emissions-free hydroelectric power.

MR. BEECH: So as far as the environment goes, there's an advantage, is what you're saying, because the power that you are replacing is power that would be carbon power, carbon-based.

MR. HARVEY: That is correct. And there is an advantage, as it was modeled for the state environmental impact report, using -- for pumped back power, combined cycle natural gas power, and displacing on generation simple cycle natural gas, which is what the state guidelines tell us to

do -- this is the California Public Utilities Commission -- we end up with a net benefit of emissions and a net reduction of greenhouse gasses. As FERC modeled it, they did it with wind as pumped back power, and then hydro and generation. So that showed an even greater greenhouse gas benefit.

MR. BEECH: Okay.

MR. HARVEY: We can't guarantee that we would always have wind power available for pumped-back that we would be able to justify that.

MR. BEECH: Good. Okay. Thank you.

MS. CASTOR: Renee Castor again.

So we've been talking about the negative impacts of wildlife. I have a question about the potential positive impacts. Because you are bringing more water to the desert. Have you done any research on how you might positively impact the environment?

MR. HARVEY: Is that your question rather than mine? I'd be happy to answer it.

UNIDENTIFIED SPEAKER: (Indiscernible; not at microphone.)

MR. HARVEY: Recall this is FERC's meeting for a review of their EIS. So they are the ones that need to answer that. I'll be happy to talk to you after the meeting --

MS. CASTOR: Okay.

MR. HARVEY: -- to give you what our perspective is and what our study showed.

Are there any others just about the project itself?

(No responses.)

MR. HARVEY: Thank you very much.

MR. RYCHENER: I can address that briefly. Because it's the desert, to a great extent, the local wildlife is adapted to being in a pretty dry environment. From our analysis, we evaluated the additions of water as having more of a negative effect, because there's the potential that that water would subsidize other animals that aren't -- that don't occur here as naturally, such as ravens and sea gulls and that sort of thing.

MS. CASTOR: Lake Tamarisk already does that, though.

MR. RYCHENER: Right. Exactly. Yeah. It does. So we evaluated that, and we came up with some potential mitigation measures that we'd like the Applicant to implement, more or less just to ensure that the existing environment is the way we think it is, that there's sufficient existing water for all these other animals with water from Lake Tamarisk, water from the canals, water from the treatment plant at Eagle Mountain, that adding this new water source isn't going to substantially increase the amount of water that's available. It's not like the ravens and the

coyotes are drinking these other places dry and starving for water.

I'll get into it a little bit in my presentation, too, but just to counteract that, and to make sure that we aren't making a mistake, and that our assumptions aren't false, we'll have them do some monitoring of those other animals before construction, and then evaluate whether they are indeed having an effect or not.

MS. CASTOR: Thank you.

THE REPORTER: Could you remind me of your name again? I'm sorry.

MR. RYCHENER: Tyler Rychener.

THE REPORTER: Thank you.

MR. HASSELL: Joe Hassell. I'm with FERC. I'm an environmental engineer.

I was thinking, in direct answer to a question about a benefit, that was the original question, there is for the sheep something.

MR. RYCHENER: Correct. Thank you for reminding me about that. There are big horn sheep that occur in the area around the mine pits. Something that Eagle Crest has proposed is to allow an area in the lower mine, in the lower pit, when the water comes up to a certain elevation, it'll come up past the fence line to provide water for those sheep, because there's -- yeah, provide water for those sheep. Then

as that water goes back down, the fence will prevent the sheep from getting into the pits, where they could be injured. But it does provide an additional source for the sheep in the area.

Thank you.

MR. HOGAN: With that, I'd like to ask my contracting team to explain the major differences between what Eagle Crest Energy has proposed for a project, and what Commission staff's recommendations are in the draft EIS. Then we're going to go to public comment.

MR. LEVERICH: Again, my name is Glen Leverich, contractor to FERC, responsible for reviewing a portion along with John, our hydrologist at Louis Berger, responsible for reviewing water resources, and highlighting here the major differences with the Applicant's proposed measures. We've modified them a bit.

The first bullet we have here is additional monitoring of the reservoirs and the brine ponds and the stream channel, modifications along Eagle Creek. That's between the reservoirs.

The second bullet, more protection, warning opportunities and measures to monitor and rectify. This is really the main thing that we added was a comprehensive monitoring program. Several of the original measures that were proposed, each had a separate monitoring element to it.

We suggested that these have a comprehensive component to them, so that they're all coordinated together, again, to evaluate, to monitor, and to rectify the possible negative effects that the proposed project -- that could occur during project operation.

MR. RYCHENER: There's also a couple different things that we added on to the Applicant's proposed measures to protect terrestrial resources. The Applicant had proposed an invasive species monitoring plan to monitor areas that were disturbed during construction, and make sure that those areas weren't colonized with invasive species.

We added the -- or increased the scope of that monitoring to include seepage areas associated with the pits, seepage areas that could be occurring near the wells, and then the perimeters of the reservoir, to ensure that, because we're adding water to those areas, there's a potential that it could create colonization sites for invasive species. So we'll monitor those areas to ensure that that doesn't occur.

The Applicant also proposed an avian protection plan, proposed to construct their power line in a way so that it would try to reduce any potential effects, electrocutions for raptors. We thought it would make sense to take that a little bit farther, and also wanted them to evaluate potential effects of bird collisions with the lines, and to incorporate a plan for monitoring their lines, and reporting

the numbers of bird injuries or bird fatalities that occur, so that other utilities can use that data to improve transmission line interactions with avian resources. Also, we wanted those plans to also include some training of personnel and monitoring of nests on structures and that sort of thing.

The Applicant had done some surveys for the spadefoot toad in the area. Because we were recommending a new line, we simply asked that they expand the coverage area that they've done their preconstruction surveys to include any areas that would be disturbed under our proposal that have not already been surveyed.

For threatened and endangered species, I've already touched on most of this, so I won't go into too much detail. But basically, they had proposed to monitor ravens, and we asked that they expand that monitoring to include other potential desert tortoise predators like gulls.

As we've talked about, we've developed another alternative, or recommended the State Water Board's alternative transmission line, which would be slightly longer, but would be collocated with the existing 115 KV line, to move the line outside of desert tortoise habitat, and reduce the creation of new structures in areas where there aren't already holes that are -- which would make them more suitable for birds perching and that sort of thing.

MS. McDOUGAL: For cultural resources -- oh, Alison McDougal, Louis Berger. For cultural resources, the Applicant submitted a working draft historic properties management plan in December 2009. We took a look at that plan, and found that there are just some thing, some additional things, that it required, and just some additional measures.

One would be to clarify that the Eagle Mountain town -- mine and town site and associated railroad are potential historic properties eligible for the National Register of Historic Places. We also asked them to revise the HPMP to include annual monitoring over the license term.

Also, if any archeological test excavations or data recovery excavations were necessary, there needs to be a plan in place for curation. What are you going to do with the stuff you get? Where is it going to go?

Let's see. We needed them to clarify the monitoring protocols that they're going to be doing, monitoring of cultural resources. Additionally, we wanted them to do a bit more consultation with participating Native American tribes with regard to employee training.

Also, the HPMP was developed, but they hadn't fully fleshed out the alternative transmission line alternative. So those need to be revised -- addressed in the HPMP, including the results of the surveys that were undertaken

along those alternatives, or at least the preferred alternative. So we need some new maps in there.

The sites that were identified, the archeological sites that were identified, along the preferred alternative need to be addressed in the HPMP. They need to be -- those resources need to be evaluated for the National Register of Historic Places, and if there would be adverse effects, they need to come up with some sort of management or mitigation measures for those resources. So we would need a plan and schedule for that.

Finally, in 2009, there was some new legislation regarding paleontological resources that may be identified on federal lands. So that would apply to BLM lands out there. So while paleontological resources are not cultural resources, and they are not historic properties, the new legislation doesn't necessarily have an implementation -- we -- we don't know how to implement that yet, and so we figured that the HPMP would be a good place to at least address that issue, with the qualification that they're not necessarily covered under the same laws.

MR. HOGAN: Okay. Everybody falling asleep now?

Can I get a show of hands of people who may be here that have received FERC's public notice that you may have property that's directly affected by potential project features and risks -- one, two -- two? Okay. Tonight we do

have here a GIS system. If you're not certain where the project features will fall according to your land, we can look up your parcels or parcel and identify that to help educate, you know, any potential concerns. We certainly want to hear concerns and recommendations. Obviously, we want to hear other public comment, too, but we do recognize that there are certain landowners that may be directly affected versus others that are affected within the community.

Question?

MR. BEECH: John Beech from Desert Center.

I didn't receive one of those notices, but I actually would be directly affected. One that might be understood is that I live in the area, and the aquifer underlies that whole valley. So I would be affected, as would everybody else. But I live -- I own property right along the Gentay (ph) line, which is not the preferred one. It's the one that's referred to as A1 in the first solar BLM process. A2 is the northern one. But, you see, I didn't get a notice, and my property is right along where that second line would go. So I'm wondering why that might be.

MR. HOGAN: Do you by chance have your parcel number? You do? This is a great demonstration.

MR. BEECH: This is the movable mic. The parcel number is 808072003. It would be just due south of where the line would cross 177, if it took that southern route.

MR. RYCHENER: Right there?

MR. BEECH: Yes, that's right.

MR. RYCHENER: I'm sorry. This is Tyler. We can zoom in down here. This is Kaiser Road, I believe, so this is where that other alternative would've been. The reason that you did not receive notice is that we only sent notices to people who were within -- I believe it was a quarter mile of the recommended alternative.

MR. BEECH: (Indiscernible; not at microphone.)

MR. RYCHENER: Right.

THE REPORTER: Can you repeat that? I didn't --

MR. RYCHENER: And the recommended alternative, the proposed alternative, and the water pipeline -- they're -- well, not within a quarter mile of the pipeline, but people that were directly crossed by the pipeline, within a quarter mile of the transmission line alternative.

MR. BEECH: Okay. I'll accept that. Although I think I am within a quarter mile. But it's not a big deal. But I accept that, because I'm here anyway.

(Laughter.)

MR. HU: Okay. Well, to open up, then, this is Philip Hu. Then the obvious question is, how does FERC or Eagle Crest Power address the situation where their project or their transmission line, whether it be above ground or below ground, affect directly -- or adversely affects

property owners or landowners?

MR. HOGAN: Philip, what we want to find out tonight is -- and obviously through the comment period of February 28th -- we wanted to make it known that there is potential for effects, and we want to hear from property owners in the community what that effect is, and what the concerns are, so we can try to address those effects.

MS. CASTOR: Mr. Hughes (sic), if you don't mind me asking, where's your property located at?

MR. HU: I have parcel numbers, but just a brief description, we are probably just a little south of the airport. Both the transmission line and the water directly cuts through our property, directly cuts through the land.

MR. HOGAN: We practiced on that one a couple weeks ago.

MR. HU: Being shown right now is basically our land.

MS. CASTOR: Is that the citrus farm, Mr. Hughes?

MR. HU: No, there's currently not a citrus farm there.

MS. CASTOR: Oh, and my other thing was, when you were showing Mr. Beech's property, that map didn't show the Kaiser line, and it does cut across where his property's at.

MR. HU: If I were to -- this is Philip Hu. If I were to draw a box of approximately the land, this would be

the top corner coming down over and up, about that rectangle. So you can see both the water cuts through the top portion, and the transmission line, which will basically widen the current easement that we have on the property, so it still affects the property.

MR. HOGAN: Okay.

MR. HU: Again, this is Philip Hu. Probably I should go back and give a little background. I'm the owner of a business in the RV business, in the mobile home park business. We own parks in a couple states -- Arizona, Nevada, California. We also own several hundred acres in Arizona and Nevada as basically our inventory, if you will. Our Desert Center acquisition is part of the inventory. I'm not saying we will develop. It's just something that we might develop at this point. So -- but it is basically our business in developing, managing and operating RV parks and mobile home parks.

MR. HOGAN: Can you give us some description of how the proposed project facilities on your lands may influence your potentially planned activities?

MR. HU: Yeah. Thanks for that. Well, any easement, particularly these two, makes planning a little more difficult. As you can imagine, RV parks and mobile home parks, such as the one we own, are in excess of 300 spaces. Our largest one is close to 700. These easements would

obviously impede that kind of development, since these parks usually have roads, asphalt roads, concrete, so forth. So it would be difficult to build over these easements, particularly with water lines underground. Of course, being too close to transmission lines is not a great idea. But we're more concerned with having too many easements along the land, which would, again, adversely affect our possible development for RV parks and mobile homes.

MR. HOGAN: Thank you.

Do we have any other landowners who have questions about where the project facilities might lie in relationship to their property?

(No responses.)

MR. HOGAN: Okay. With that, we have a few people who have signed up that would like to provide comment on the draft EIS this evening. I'm going to have Joe just call you up one at a time. If you could, come up here to this microphone and speak into the mic. As you know, we're being recorded by a court reporter, so the mic is kind of necessary. Or if you'd prefer, I can bring the mic to you. It's up to you.

MR. HASSELL: Several of these speakers have been taking part in the conversation that is going along, with the exception of Mr. Cox (sic). Would you like to speak now?

MR. COOK: Cook.

MR. HASSELL: Cook. I'm sorry. I couldn't read it.

MR. COOK: I have terrible handwriting. And I would prefer the microphone so I can read my notes.

Thank you. I'm going to try to read my notes, which are probably as bad as the handwriting on that speaker slip. So again, my name is Terry Cook. I'm a Vice President with Kaiser Eagle Mountain, LLC, and with Mine Reclamation, LLC. Kaiser Eagle Mountain is the owner of the land on which most of the project will be located, the owner of the historic mine. We own or control about 10 to 11,000 acres of that site. And Mine Reclamation is a developer of the Eagle Mountain Landfill Project, which is under contract to be sold to the Los Angeles County Sanitation District.

As everybody knows in this room, Kaiser and Mine Reclamation, for the life of this project, which has been going off and on for over 20 years, opposes the project, continues to oppose the project. In fact, it is true that, unless Eagle Crest has snuck onto the property, they haven't been on the property. We will remain opposed to the project, too. Any rumor that we're close to an agreement with them would be false. So I just wanted to clarify that.

We will be submitting extensive comments on the draft EIS by the February 28th deadline. But there are a few things I did want to clarify and note, if I might. So these

are some questions of clarifications.

First, I just wanted to point out that Mine Reclamation is not listed as an intervenor or in opposition, which I believe it is, in your document.

MR. HOGAN: Who's that?

MR. COOK: Mine Reclamation, LLC. While Kaiser owns a majority of that, it does have other owners of that, including one very large one that would be unhappy if he's not listed.

A housekeeping thing is I would like to get a copy of these slides that have been in the PowerPoint presentation. Is that going to be possible?

(No audible response.)

MR. COOK: Okay. Thank you.

Okay. To my specific clarification questions, on page 3 of the draft EIS, under Section 1.21, it says, "The Commission must determine that the project is best adapted to a comprehensive plan for improving or developing a waterway." What is the waterway in this proposed project?

MR. HOGAN: I'm sorry. I was writing notes. Question again?

MR. COOK: What is the proposed -- apparently, this is something out of the FERC regulations. You must put in -- it says, "The Commission must determine that the project will be best adapted to a comprehensive plan for improving or

developing a waterway." I'm asking, what is the waterway in this project?

MR. HOGAN: Well, I'm going to say that's a really fair comment, and I'm not an attorney for the Commission, but we will certainly address that answer in our final EIS.

MR. COOK: Okay. Fair enough.

In this afternoon's meeting, there was a mention several times by FERC staff, and I believe by others, that there are draft conditions of approval. Are there draft conditions of approval in one document at this point in time?

MR. HOGAN: Are there draft --

MR. COOK: Conditions of approval for the license.

MR. HOGAN: Draft conditions of approval?

MR. COOK: Correct.

MR. HOGAN: No. What we have here is -- maybe I should do a little explanation of what and how the Commission uses the environmental impact statement. Of course, under the National Environmental Policy Act, we are required to prepare an environmental impact statement or EA, a NEPA document, for any federal action, or for most federal actions. The way the Commission uses -- this is a staff document. This is not the Commission's document, the Commission being five individuals who are appointed by the President of the United States, who actually weigh in.

Our environmental document is a recommendation that

staff makes to the Commission, who then weighs in on -- who then makes a decision on what they want to do for the -- regarding the proposed licensing of the project. That can be a denial, it can be approval, it can be approval with the staff recommendation, or it can be approval completely with whatever they want to do. So anything that's in this document is merely how staff feels things should be done. So it's not -- it's -- at this point, the Commission has not made any judgments or provided any -- and it will not provide any draft order of what the license would look like, or denial of the license would look like.

So I'm not sure if I'm answering your question, but --

MR. COOK: I'm not sure you are either. For instance, Mr. and Mrs. Charpied raised the issue about impacting local water wells, and it was said that that would be in the condition of the license that they would take care of all those impacts. I was just wondering if there's already a draft list of those kind of conditions that'd be included in the license.

MR. HOGAN: There is a draft of the conditions that Commission staff is recommending to the Commission, and those are in Chapter 5 of the draft EIS.

MR. COOK: But those were environmental mitigation measures primarily; right?

MR. HOGAN: That's correct.

MR. COOK: Okay. All right. The draft EIS provides a deferral of a number of critical studies until after the license is issued. You're well aware of that. For example, the subsurface investigation, the water -- there's apparently a recommended water budget that needs to be prepared, the surveys of special plant populations is deferred, and a number of other things are deferred until after the license is granted. So putting aside for the moment whether the deferral of these studies will be sufficient under NEPA and the required hard look before the federal agency makes a decision, what kind of conditions will be imposed so that governmental agencies and the public will have the opportunity to comment on and receive these studies? Assuming the license is granted, you have a lot of studies coming afterwards. How does the public or a governmental agency get notice of those studies, receive those studies, and comment on those studies?

MR. HOGAN: The recommendations, as we have it set up currently, is for developmental study plans, which would need approval. They get filed with the Commission in the public record. Anybody is welcome to file comments into the Commission's public record. Then the Commission will, similar to the licensing process, make a decision on those plans, and modify, approve or deny, and send it back.

MR. COOK: Even post-issuance of the license they'll do that?

MR. HOGAN: Yes.

MR. COOK: So that was going to be one of my questions, is, if the results of the studies are adverse, what procedures and criteria will FERC use to institute additional conditions to the license, or even terminate the license?

MR. HOGAN: Those types of provisions would typically be incorporated into any plans that are going to be required by the license.

MR. COOK: And will we have the opportunity to comment on that?

MR. HOGAN: Yeah.

MR. COOK: Okay. On land ownership, clarify for me how the land ownership is discussed in general in the draft environmental impact statement. As I read it, the draft environmental impact statement assumes that Kaiser does not currently have the land as part of the land exchange, if you read footnote 8. So all the discussion is as if there was no completed land exchange.

MR. HASSELL: That's on page 1.

MR. COOK: Page 1, right.

MR. HOGAN: This footnote was specifically for a land exchange between BLM --

MR. COOK: -- and Kaiser, us.

MR. HOGAN: -- and Kaiser. So what's the question?

MR. COOK: Well, it appears that throughout the EIS, it leads one to believe as if there's no completed land exchange based upon the number of acres, and as explained by footnote 8. I'm just making sure I understand it.

MR. HOGAN: Is the land exchange completed?

MR. COOK: Yes. Now, it's subject to litigation, but the land exchange has not been reversed. It's been set aside.

MR. HOGAN: Okay. Well, that's a good comment. We will --

MR. COOK: Okay. So just to clarify that.

MR. HOGAN: Thank you.

MR. COOK: To the gentleman, this other landowner -- this was brought up by Mr. and Mrs. Charpied -- just so you're aware, once the license is issued, if you can't reach an agreement with them, they have the power to take your property by eminent domain. So you get an evaluation dispute.

Second question on land ownership, on page 134, figure 9, proportions show the land ownership, and it says, "as modified by staff." My question is, what modification was made by staff?

MR. HOGAN: It's usually modifications to the

figure itself from the application.

MR. COOK: So it wasn't a modification to -- on the land ownership? I'm just trying to figure out what it is.

MR. RYCHENER: Do you want me to answer that?

MR. HOGAN: Yes. Tyler is the transmission line.

MR. RYCHENER: This is Tyler. The only reason we put in that footnote, basically, those figures were provided with the GIS data provided by the Applicant, but we didn't use their exact figure that they submitted into the public record. We changed the view or changed the labeling, and that kind of thing. So that's the modification. But the actual data that's represented wasn't modified.

MR. COOK: That's my question. Thanks.

On the economic analysis, just a few questions of clarification so I can comment on this. What is the estimated current total cost of the project to the point of generating electricity? I may have missed it, but I don't see it in the draft EIS.

MR. HASSELL: Your question again? Can you repeat that?

MR. COOK: The total cost of the project to the point of generating electricity.

MR. HOGAN: So construction costs?

MR. COOK: Basically construction costs, permitting and construction costs.

MR. HOGAN: Does Eagle Crest, any of you, have that number?

UNIDENTIFIED MALE SPEAKER: Not off the top of our head (indiscernible; not at microphone).

MR. HOGAN: That was a negative response.

THE REPORTER: I didn't get the question, so if you could repeat the question before the response.

MR. HASSELL: It would be -- it's in Appendix H, isn't it?

MR. HOGAN: Joe, can you just repeat the question, and (indiscernible; not at microphone).

MR. HASSELL: What is the total cost of constructing the project?

MR. HOGAN: And Eagle Crest said they weren't sure.

MR. HASSELL: Eagle Crest says they're not sure. I believe it's in Appendix H of the application if we didn't put it in the DEIS.

MR. COOK: It's not in the DEIS, but I could've missed it. I've only got one good eye, so I could've missed it.

MR. HASSELL: I'm told by Eagle Crest it's 1.5 billion, approximately.

MR. COOK: Okay. Thank you.

I noticed on the summary page of the economic analysis on page 213 it shows as part of the operation and

maintenance -- it shows a yearly amount all lumped together of land leases. I assume this is the land that they intend to use, private land; is that correct?

UNIDENTIFIED MALE SPEAKER: That's correct.

MR. HASSELL: Eagle Crest says that's correct.

MR. COOK: And why is the assumption it will be land leases as opposed to sales, purchases of the property?

MR. LOWE: It is one of the potential alternatives. Our understanding at the time of writing that was that was the most likely alternative.

THE REPORTER: And your name, please?

MR. LOWE: Steve Lowe, Eagle Crest Energy.

THE REPORTER: Thank you.

MR. COOK: So my question for the economic analysis is, if these actually had to be purchases, would it not impact the kilowatt hour cost, instead of lumping it into annual operating cost?

MR. HASSELL: If it were, yes.

MR. COOK: Okay. And of that, how much for land leases has been allocated to land leases, as currently proposed, the amount of dollars?

MR. HASSELL: Are you speaking -- can I get you to clarify --

MR. COOK: Sure. It shows 29 -- basically $29-million a year for the first three years, 28.3 thereafter.

Part of that number includes land leases. How much of that number is land leases?

MR. HASSELL: How much of that total operation and maintenance --

MR. COOK: Correct.

MR. HASSELL: -- is land leases, and how much is for pumping, and --

MR. COOK: Right.

MR. HASSELL: -- (indiscernible; speaking simultaneously) --

MR. COOK: How much are you offering to pay people?

MR. HASSELL: I don't have that number. Do you?

UNIDENTIFIED MALE SPEAKER: We would have to check our background (indiscernible; not at microphone).

THE REPORTER: Can you repeat that, please? I didn't pick up what he said. It was off the microphone.

MR. HASSELL: I'm sorry. He said he would have to check the background information. Mr. Cook's question had to do with what portion of the $29 million was for land leases, and we don't have the answer today -- tonight.

MR. COOK: Another question I have on the -- if you look at the line item above, it says "net investment, zero," and it was provided by FERC staff. Explain how that could be zero.

MR. HASSELL: Oh, net investment? What's been put

into the project now.

MR. COOK: Right.

MR. HASSELL: I mean, study money has been put into it, but there's nothing been constructed yet.

MR. COOK: But would that include the construction number?

MR. HASSELL: There's been no construction.

MR. COOK: But in calculating these values, would there be construction --

MR. HASSELL: Oh, if it was a built project, yes.

MR. COOK: Okay.

MR. HASSELL: But right now, it's not a built project.

MR. COOK: Okay. One of the things they put in is the value of ancillary services. This was just a question about the ancillary services. On what basis did Eagle Crest get those estimates? Do you know?

MR. LOWE: We have developed estimates for the value of capacity, production of energy, and production of ancillary services through consultation with the California Independent Service Operator, Public Utilities Commission, and various consultants that have done work on how this project would be dispatched in the future.

MR. COOK: And clarify one thing. It's my understanding from looking at your initial economic analysis

that the project is not commercially viable just based upon the difference between pumping at day rates versus pumping at night rates. Is that correct?

MR. LOWE: That is correct.

MR. COOK: Question about, if you have a black start, what you tout as a benefit of the project, if the water's in the lower reservoir, is there any black start capacity?

MR. LOWE: There is. There will always be the potential. All of the water will never be in the lower reservoir. There will always be the potential for a black start the way the system is designed to be operated.

MR. COOK: And assuming that the maximum draw-downs occur, then what's the time period for the black start?

MR. LOWE: I don't know that.

MR. COOK: Don't know that. Okay.

Then I just have a few questions for FERC. These are going to be kind of unfair questions maybe. My first question is, has FERC staff ever reversed its favorable recommendation of a project after receiving public comment?

MR. HOGAN: I know of one situation and circumstance -- I've only been with the Commission for ten years -- that we issued a draft NEPA document, and we may have even gone to final, but it was unclear how the applicant was going to meet a certain recommendation that the staff

recommendation would require. So we asked them to clarify that, and they weren't able to, so we denied the application.

MR. COOK: And do you know what project that was?

MR. HOGAN: I remember Anderson Creek. I don't know the project number.

MR. COOK: Okay. That's okay.

MR. HOGAN: It's in the State of Washington, I believe, maybe Oregon.

MR. COOK: And then, has the Commission itself ever rejected a project that FERC staff has recommended for approval?

MR. HOGAN: That, I do not know.

MR. COOK: Okay. And one last question. What is the status of the Devers 2 line and your interconnect agreement?

MR. HOGAN: Can you repeat that again?

MR. COOK: What is the status of the Devers 2 transmission line? It's my understanding ECEC has no outlet for its energy until Devers 2 is constructed and the interconnect. I'm just curious, what's the status of that transmission line and the interconnect?

MR. HOGAN: That's a comment we heard earlier, and that's certainly something we're going to have to look into for the final EIS.

MR. COOK: So you don't know the answer right now?

MR. HOGAN: No, I do not.

MR. COOK: Okay. Thank you.

MR. HASSELL: If any of the other people who signed up to speak, or for that matter anyone else would like to speak, either Mr. Beech --

MR. BEECH: I would. I have some brief comments.

MR. HASSELL: Okay.

MR. BEECH: I'm John Beech from Desert Center. I have a few comments I'd like to make. These are not directed at any specific paragraphs or pages from the document, but I think that generally they need to be said. These comments are my own. But in coming up with my opinion, my view of the project, I have discussed various things with other residents of Desert Center. But again, I'm only speaking for myself. I think, though, that these views will have some other support in the community.

The first point is one that Mr. Cook just made, and that is that Kaiser currently is the owner, and has the complete say over what happens to the property. So that does not appear to be an issue for this particular meeting, but I know it's an issue for Kaiser, and they'll deal with it in the way that they feel is proper.

Having said that, a larger question is, what is an appropriate use of that property? Again, not to take away from the fact that Kaiser owns the property, but the general

view in the community -- and I'll say that specifically my own view is that an industrial use of some sort is appropriate. There was formerly an iron mine there. There is a MWD pumping plant nearby. Potentially First Solar will have their solar farm in the vicinity, as well. So if the question is an industrial use versus potentially returning it -- or turning it over in some form to Joshua Tree Park, I think that an industrial use of some sort is a more appropriate use for it.

The next issue -- and this is probably the one of greatest concern -- has to do with the amount of water to be taken from the aquifer. This is why I wanted to put some -- some -- I wanted to have some method of determining the quantity of water. Rather than 8,000 acre feet, which is kind of a number without a great deal of meaning, 8,000 acre feet would be approximately one third the amount of water taken each year during the period of jojoba production back in the late '70s and '80s, and the period of fill would be three years versus ten years, approximately, of the jojoba production.

So the amount of water potentially is going to be quite a bit less, and for a much shorter period of time. So I think that puts some sense of what that number means rather than just saying it's a great deal of water, and you can't take it. You know, what is the amount of water? How does it

compare to something else?

Then again, with the 1800 acre feet a year, I wanted to relate that to the power production. It's generally understood that there's about one acre foot of water per residence. So we're looking perhaps 1800 residences worth of water on the one hand. But on the other hand, we produce power that could serve one million residences. So there's quite a favorable balance there in terms of the amount of water used versus how much benefit there would be from the electricity produced.

But I think the final comment as far as the water usage goes, it's a very technical issue. I know Eagle Crest has done quite a number of years of work investigating the specifics. It's not something you can come up with an absolute answer. Some of it's going to require interpretation. But I think that interpretation needs to be made by the people who are competent to do so based upon the information they're provided. And Eagle Crest is responsible for providing a complete set of information.

Same with the other issue of seepage, contaminating or potentially contaminating the aquifer. I've discussed this with Mr. Harvey, and Eagle Crest has a way of dealing with that issue to minimize the seepage. And whatever does get through would be treated prior -- I'm saying this not in quite a good way -- but through reverse osmosis, I believe,

they're going to reduce the concentration of salts and other material in the water. So they have a plan to make the seepage not an issue. Again, that's a technical issue which would need to be evaluated. But they have that. They've defined it. They have data to back up their position, and so, again, that's one that we're concerned about in the Desert Center area. But again, I think it needs to be looked at in terms of the data that Eagle Crest has presented.

Then I have the general question about environmental impacts. I think it's taken for granted there will be some impacts. The question is, how are those impacts going to be mitigated? Is the mitigation satisfactory? Again, this is an issue that requires some study. I couldn't stand up and say that there will be more predators, and so the desert tortoise will be adversely affected, and just say that that means the project can't go forward. No. It's like these other issues. It needed to be studied, and I think it has been. And then a determination has to be made whether or not the mitigation's appropriate. If it's appropriate, okay.

You're never going to get everybody to agree, but you have to do a trade-off on these various things.

The last comment I have has to do with what I'll call the A1 line, because I'm using the term that BLM's familiar with with the First Solar Project. A1 is the southern transmission line. A2 is the northern one that's

preferred by Eagle Crest. As residents of the community would like one or the other, we prefer the A2, which is the northern route, because it doesn't go right through the center of our town. But the worst possible situation would be if BLM approves A1, cutting through the center of town, and FERC approves A2, so now we have two routes. So, please, if it can be worked out between the two organizations, let's have only one route, preferably the northern route, or the A2.

Thank you. That's the conclusion of my comments.

MR. HASSELL: Ms. Castor also was talking, and she's signed up, too.

MS. CASTOR: Renee Castor. For FERC -- not to sound ignorant, but I'm new to this -- what is the avian protection plan?

MR. RYCHENER: Not exactly sure where to start. This is Tyler Rychener. There's an Avian Power Line Interaction Committee that was -- I think they started working maybe around 1990. I'm not entirely certain. It's a conglomeration between a number of utilities across the country -- Fish & Wildlife, and probably some other entities. They realized that, over the course of the years, in building the infrastructure of our utilities, that there were impacts with birds associated with electrocutions and collisions, and that nobody really had a good idea what effect these power

lines were having on the avian community.

So they got together and they started studying it. Over the years, they've developed several different publications where they have a set of standards that they recommend are incorporated into an avian protection plan, where a utility builds a line, or any utility operating a grid would incorporate these types of considerations in terms of how you space the conductors outside of wingspans to try and avoid electrocutions, or putting different types of devices on the lines to try and make them more visible to reduce collisions, or implementing different types of devices that may try to inhibit birds from building nests in areas that are really hazardous.

So an avian protection plan is a recommendation from the APLIC and Fish & Wildlife for how they recommend people or utilities plan to make their utilities have less of an effect on birds.

MS. CASTOR: So in layman's terms, it's a bird protection plan?

MR. RYCHENER: Yes.

MS. CASTOR: Thank you. That's all I needed.

MR. RYCHENER: Oh, I'm sorry.

(Laughter.)

MS. CASTOR: That's all I needed.

UNIDENTIFIED MALE SPEAKER: I learned something.

(Laughter.)

MS. CASTOR: I appreciate it.

I had a question on the aquifer. I mean, we know what's coming out of it. Does anybody have a study that knows what the annual refill -- natural refill is on it?

MR. LEVERICH: This is Glen Leverich. I think the estimate is between 6,000 up to 20,000 or more. The conservative estimate is on the order of 12,000 acre feet per year, the natural recharge.

MS. CASTOR: So when you go into the 1800 per year, basically it's far less than what the natural refill is?

MR. LEVERICH: Yes.

MS. CASTOR: That's what I -- just making sure.

MR. HASSELL: Excuse me. This is Joe Hassell again. It's far less, but that's not the only thing. If you look at everybody, it's about the same. And everybody -- well, let me start with like the biggest and go backwards to the smallest users. Now, the biggest is going to be agriculture, and they have about 6,000 or 6900 acre feet per year, I think.

MS. CASTOR: Is that current agriculture?

MR. HASSELL: Current agriculture, not, you know, what happened back in the '80s. That was like 20,000 acre feet per year. But right now it's 6,000, 6,900 acre feet per year, something like that, agriculture.

Then we go back to who's going to be the next biggest. That's going to be Eagle Crest at 1700 acre feet per year. That's post-fill period. That's, you know, year four through year 50. Then the landfill comes in about 600, a thousand? -- no, 600 acre feet to a thousand acre feet per year -- is -- is what we're using in our water budget. Lake Tamarisk, a thousand acre feet per year. So then there's some little things -- Desert Center, the prison, other things like that. But overall, it's going to be about equal -- okay? -- for the long-term.

So we talked about a cumulative effect. At the end of the 50-year license, we said there would be a depletion. Okay? That means we think, based on this water budget -- and of course there's lots of uncertainty about what's going to happen 50 years from now -- but we're going to be using a little bit more per year consumptively than is being recharged. But the aquifer itself contains anywhere between 10 million and 15 million acre feet of recoverable water. So at the end of 50 years, we will have depleted that storage by less than one percent.

So the point I wanted to make, 1200 acre feet per year is our most probable number for recharge -- 12,000 -- excuse me -- is the most probably number that we have for recharge. Seventeen hundred acre feet per year is what's going to be coming out by this project. But then there's

everything else, and it's sort of all about the same.

MS. CASTOR: So basically any growth is going to have the same effect. Any growth in the valley is going to have the same effect.

MR. HASSELL: If it was another -- if -- if it was this project that we heard about, Shavers, whatever, it would have some use. Okay? But all use is not the same. In the arid southwest, where this project's located -- and not to -- not to put any -- cast any aspersions about how we live here, but water use here is generally used consumptively. Okay? I mean, the people in Lake Tamarisk use a thousand acre feet per year. Some of that is going to be recharged back into septic systems. But the majority of it is probably used to make that area look good, green. Okay?

So most water use here, the water use that would be used in the landfill, I guess for cover material, it would probably be consumptive use. The water use used for the Eagle Crest Pumped Storage Project, that's evaporation. That's consumptive use. So we are talking about consumptive uses here.

MS. CASTOR: Okay. I lost my place now. For -- oh, I was going to just let BLM know that the Desert Center community really prefers the A2 route, because the A1 route, even though we're not actual property owners, the Chamber of Commerce, one of the reasons for it being formed is for

growth, mostly commercial growth, and the A1 line cuts through our only viable commercial property. It will have long-term economic effects on the community.

One last thing. I wanted to ask Mr. Terry Cook of Kaiser, how can we give Kaiser a presentation so that they get the community's view on why we do or don't want this project in the community?

MR. COOK: If you offer me ice cream at the community center at Lake Tamarisk, I'll be there and talk to you.

MS. CASTOR: We are having a Chamber of Commerce mixer the 23rd of February. You're more than welcome to attend.

MR. COOK: February 23rd.

MS. CASTOR: I'll make sure there's ice cream. What's your favorite flavor?

MR. COOK: Cold.

(Laughter.)

MS. CASTOR: I got that, too.

MR. HOGAN: I have a question for you about the transmission line route. So just to be clear, you are -- your community's in support of the FERC staff recommended route --

MS. CASTOR: The northern route.

MR. HOGAN: -- versus the other proposed route by

Eagle Crest?

MS. CASTOR: Right. Kaiser Road is our only main road, not counting 177, which is our other main road. It's our only commercial property available for growth. They're cutting -- I mean, just like Mr. Hughes (sic) has a problem with the power lines on his commercial property, we have the same problem with any growth, because it does the same thing through our only viable commercial property.

MR. HOGAN: Understood. Thank you.

Do we have anybody else signed up?

MR. RYCHENER: Ken, can I clarify one thing?

MR. HOGAN: I know I screwed that up, didn't I?

MR. RYCHENER: I don't think you did. I think I -- you had asked a question earlier that John's property was close to a line that --

MS. CASTOR: Right. It didn't show the Kaiser route on the map.

MR. RYCHENER: Right. We didn't analyze the Kaiser route. The only routes that we included in our notification were -- I shouldn't say we didn't analyze. The routes that we included for notification were Eagle Mountain's proposed route and the staff recommended route. We looked at the other, like the Kaiser Road alternative, and the southern alternative, and we included that in our analysis, but we didn't include those lines in our notification because we had

sort of eliminated them from what we were recommending for the project.

MS. CASTOR: Right. But I understand Mr. Beech's problem, because as it is, we're in the process of fighting the Kaiser route. So to him, that's a very viable route that he's going to be affected by.

MR. RYCHENER: Okay. Thank you.

MR. HOGAN: Joe, did we have anybody else signed up?

MR. HASSELL: No, unless somebody else --

MR. HOGAN: So we've gone through all the folks who have signed up to speak. Is there anybody who's now heard something that they feel they would like to make a statement on the record?

(No responses.)

MR. HOGAN: I'm not seeing any hands. Okay.

Well, with that, I'd like to go into our closing remarks. First, I'd like to thank all of you for coming here today. It makes for a much better process for us at the Commission. This is a public process for us, and public involvement is very important to us. We do take these comments to heart. All comments that have been raised here and are made in writing will be addressed. There is not one single comment that you're not going to be able to find in the final NEPA document. So if you're at the meeting, and

you heard a comment, and you want to go back in the final EIS after we publish it, you'll be able to see that we have identified the comment, and have a response to it, maybe some additional analysis based on the comment. So I do want you to understand that this is very important to us.

Some important dates. The comment period for the draft EIS closes the end of this month, on the 28th. Please file your comments -- if you have written comments that you'd like to submit with the Commission, file them with the secretary. There's instructions on doing that in the public notice. If you have any questions about doing that, you can give me a call. My number's also in the notice. There's several ways you can do it. You can e-file it, you can mail it to us.

We do want to hear any concerns or comments regarding our recommended transmission line routes, the recommended water pipeline routes, how it may affect particular landowners. That is important. So I don't want you to think we're just here doing a dog-and-pony show because it's something we have to do in a check-box, or anything like that. It is important to us, and we want your input.

We have copies of the draft EIS for anybody who did not get a copy and would like one. They're available up here on CD. Any hands?

(Pause.)

MR. HOGAN: Once we get our comments in on February 28th, we'll start working on developing the final EIS. We have a goal to issue that by July or August this summer. So that's our next process step.

I thank you all for your participation tonight, and thank you for coming.

(Whereupon, at 8:46 p.m., the scoping meeting concluded.)

CERTIFICATE

I certify, under penalty of perjury, that the foregoing is a verbatim transcription prepared from the electronic sound recording produced at the proceedings in the above-entitled matter, and is a true and accurate transcript of said proceedings to the best of my ability and belief.

_____ _____

Michael J. Williamson, Transcriber Date