Transcript

Solar Energy Development Programmatic EIS Scoping Meeting held in El Centro CA, July 10, 2008

This Acrobat PDF file contains the transcript of the above referenced Solar Energy Development Programmatic EIS public scoping meeting. If you are interested in reading the scoping comments provided by a specific person or organization at this meeting, you may use Acrobat's search tool to locate the commenter's name/organization within the transcript.

UNITED STATES DEPARTMENT OF ENERGY AND BUREAU OF LAND MANAGEMENT

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SOLAR ENERGY DEVELOPMENT
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (PEIS)
PUBLIC SCOPING MEETING

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THURSDAY
JULY 10, 2008

6:30 P.M.

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IMPERIAL COUNTY ADMINISTRATION CENTER
940 WEST MAIN STREET, SUITE 211
EL CENTRO, CA 92243

Facilitator:

Halil Avci, Ph.D.
Argonne National Laboratory

Panel Members:

Steven J. Borchard
Bureau of Land Management

Linda J. Resseguie
Bureau of Land Management

Brad Ring
U.S. Department of Energy

Lynn Billman
National Renewable Energy Laboratory

Also Present for ANL:

Ron Kolpa
John W. Hayse, Ph.D.

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Adjourn

P-R-O-C-E-E-D-I-N-G-S

(6:30 p.m.)

MR. AVCI: I have 6:30 according to my watch, and this meeting is now officially convened. On behalf of the U.S. Department of Energy and the Bureau of Land Management, we thank you for attending this evening's meeting.

This is what is called a public scoping meeting for a Programmatic Environmental Impact Statement that the U.S. Department of Energy and the Bureau of Land Management are preparing.

The Programmatic Environmental Impact Statement, PEIS for short, that is the subject of this evening's meeting is on solar energy development in six Western states -- Arizona, California, Colorado, New Mexico, Nevada, and Utah.

My name is Halil Avci. I'm with Argonne National Laboratory, the organization that is supporting the DOE and BLM to prepare

this PEIS.

At this time, I have a few requests. First, if you have not done so already, please turn the sound off on your cell phones and pagers.

If for any reason you have to leave the room during the meeting, please use the back door that you came into the room.

As you may have noticed, I have already used several acronyms -- DOE for U.S. Department of Energy, BLM for Bureau of Land Management, and PEIS for Programmatic Environmental Impact Statement.

This being a federal program, invariably there will be others throughout the evening. We will try to explain them as we go along. However, if at any time there is one that you do not understand, please raise your hand and we'll be happy to explain it.

I also would like everyone to know that this meeting is being transcribed and an official document will be prepared for the

record. That means everything that is said this evening will be recorded and placed into the official document. The document will be placed on the project website and will be available for viewing and downloading by the public.

Our court reporter this evening is Peggy Schuerger sitting in the corner over here. She is with Neal R. Gross & Company out of Washington, D.C.

The main purpose of the meeting this evening is for DOE and BLM to obtain your input on the scope of the PEIS. However, before we begin the comment phase of the meeting, we have a series of short presentations to give you some background information and explain the proposed activities.

After the presentations, there will be a short question-and-answer period. The comment phase will begin immediately after the question-and-answer period.

I am estimating, based on our meetings of similar nature in the past, I'm estimating that the comment phase of the meeting will begin at about 7:30 p.m.

Now, as our first speaker, I'd like to introduce Mr. Steve Borchard. Steve is BLM's California Desert District Manager.

MR. BORCHARD: Thanks for coming to this public scoping meeting about the solar energy development on BLM-administered lands. As part of our ongoing efforts to increase domestic energy production and ensure greater energy security, the Department of Energy and the Bureau of Land Management have initiated a joint solar energy development Programmatic Environmental Impact Statement or PEIS.

Our agencies believe that preparing this Programmatic EIS is a critical step in evaluating the extent to which public lands with high solar energy potential may be able to help meet the nation's energy needs for renewable energy.

The BLM already has over 125 -- in fact, I think we're at about 130 applications right now in the pipeline for solar rights of way, and the energy potential of these sites alone is enormous. Seventy billion watts of electricity are enough to power 20 million average American homes on a sustained basis.

The joint PEIS that will be overseen by the Department of Energy's Argonne National Laboratory will assist the environmental, social, and economic impacts associated with solar energy development on BLM-managed public lands in six Western states -- Arizona, California, Colorado, Nevada, New Mexico, and Utah.

The joint PEIS will also evaluate a number of alternative management strategies to determine which presents the best management approach for the agencies to adopt in terms of mitigating potential impacts and facilitating solar energy development while carrying out their respective missions.

I'd also like to welcome the representatives from the Department of Energy and from the National Labs that are helping us with this meeting. We appreciate your interest in the project, your comments, and your continued involvement as we proceed through our analysis.

MR. AVCI: Thank you, Steve. The next individual I'm going to introduce is Brad Ring. Brad is a Project Manager in DOE's Golden office in the Solar Energy Technologies Program.

I also would like to just mention that as we go along with these presentations, we will be showing viewgraphs on either side of the room so you can follow the presentations.

Brad.

MR. RING: Thank you. And I would also like to thank you for coming tonight and participating in this process. I'd like to take just a few minutes and go over all the

DOE's goals and the expectations from this Programmatic Environmental Impact Statement.

DOE's goals are to add energy supply from diverse sources, and specifically to make greater use of renewable sources. Accomplishing this would improve the quality of the environment by reducing greenhouse gas emissions and environmental impacts.

Another key component of these goals is improved national security. Energy that's supplied -- that is secure, sustainable, and emission-free domestic energy is imperative for our country.

The Solar Program in 2008 had a budget of approximately $170 million. The majority of this was spent -- 152- -- for research and development. It was broken out between photovoltaics and concentrating solar power. A hundred and twenty-six million went for photovoltaics and 26 million for concentrating solar power.

The market transformation funds was

spent for -- or is being spent for this Programmatic EIS and the Solar America Initiative for photovoltaic and water heating activities, activities with the 25 Solar America cities, development of codes and standards, Solar America showcases, solar specific training, and the Solar Decathlon.

The DOE's Solar Program supports what we consider two technologies. We've broken that out into photovoltaics, which most people are aware of, and that's the direct conversion of solar radiation into electricity. The other is concentrating solar power, where the sun's radiation is used to heat a fluid which is then used to drive, for example, a steam cycle turbine most notably or usually. There are some other operations that can take place separate from steam, but that's the main one right now.

Regarding the photovoltaics and the concentrating solar power, DOE has been focusing on developing these technologies to

the point where they are cost-competitive with utility markets. We do this by evaluating these specific technologies, a term used "levelized cost of energy" or the cost of the system -- the total system -- the construction, permanence, operation, and maintenance versus what actual energy they produce.

These technologies have continued to improve and -- for these renewable sources and it's driving increased use by individuals for rooftop applications, businesses, and also now for utility- scale development activities.

Next slide, please. The DOE is co-leading preparation of this Programmatic EIS really focusing on utility-scale solar projects, and those are projects that can provide power to tens of thousands of homes. But for that size of solar project, it requires intense solar radiation and the six states included in this Programmatic EIS have been identified as the best solar resources.

Resources or land mass required is approximately five acres for each megawatt. This is an approximation but, as you can tell, a 250-megawatt site would need about two square miles or 1250 acres, and BLM manages 119 million acres of federal land in these six states.

DOE expects the identification of land that is appropriate for solar deployment, both from a technical -- technically and environmentally sound standpoint, establishment of policies that would apply these solar energy projects supported by DOE, best practices, which would include the identification of important, sensitive, or unique habitats in the vicinity of the proposed projects and, to the extent feasible, design the projects to minimize these impacts.

Besides the Programmatic EIS, each specific project would have its own environmental analysis which would ensure responsible energy generation.

Additionally, we are looking to have more accurate modeling to predict the potential for solar energy development, to provide power but also the creation of jobs and mitigation to climate change.

That's all I have. Thank you.

MR. AVCI: Thank you, Brad. The next speaker is Linda Resseguie from the BLM's Washington, D.C. office. She is BLM's Project Manager for this PEIS.

MS. RESSEGUIE: I want to say thank you for everyone coming tonight to help us study this important situation with utility-scale solar energy development.

The Bureau of Land Management is an agency within the Department of the Interior that manages 258 million surface acres. And if you look at the viewgraph, you'll see the distribution of BLM lands across the West. About 15 million acres of those lands are here in the State of California.

About 46 percent of BLM's lands, or

119 million acres, as Brad mentioned, are located in the six-state study area, the area covered by the Programmatic Environmental Impact Statement. The BLM's multiple-use mission is to sustain the health and productivity of public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and also by conserving natural, historical, and cultural resources on the public lands.

Solar energy is just one of many energy resources now being developed or considered for public lands.

To ensure the best balance of uses and resources from America's public lands, the BLM undertakes extensive land use planning through a collaborative approach with local, state, and tribal governments, with the public, and with stakeholder groups. The

result is a set of land use plans that provide the framework to guide decisions for every action and approved use on BLM lands. Many of BLM's existing land use plans, however, do not specifically address solar energy development.

This simply shows the distribution of BLM lands in the six Western states.

On the viewgraph, you will see two bullets. The first is Executive Order 13212 that requires federal agencies to expedite their actions as necessary to accelerate the completion of energy-related projects. And you'll also see a reference to the Energy Policy Act of 2005, which requires the BLM to try to approve at least 10,000 megawatts of non-hydropower renewable energy on the public lands by the year 2015.

Utility-scale solar energy projects on public lands are authorized by BLM under the Federal Land Policy and Management Act. All activities, including rights of ways for utility-scale energy development proposed for

public lands must be consistent with the terms, conditions, and decisions in an approved land use plan. Before BLM can approve a solar energy project, BLM must assess the direct, indirect, and cumulative impacts of such development and must consider other resource values, sensitive areas, and public concerns.

In the notice of intent that we published for this Programmatic EIS on May 29th, BLM announced that it would temporarily suspend accepting new solar energy development applications pending completion of the PEIS. At the same time, we also announced that we would continue to process over 130 utility-scale solar energy applications that had been filed with BLM before May 29th, and Steve made reference to these applications which include over a million acres of BLM lands and have the potential to generate 70 billion watts of electricity.

During the scoping period so far,

we have heard from solar industry representatives, elected officials, and the general public, all expressing deep concerns about BLM's policy decision to not accept new applications while the PEIS was underway. In response to the high level of interest in near-term deployment of solar energy, we reexamined our "no new application" position and a few days ago we announced that BLM would continue to accept and process new solar applications along with those previously filed. We made this decision in order to aggressively address the growing demand for renewable energy while ensuring appropriate environmental protections.

The solar energy applications, both existing and those that will be filed while the PEIS is ongoing, will be processed on a parallel track with the PEIS.

Under BLM's current solar energy development policy, applications are processed on a first come/first serve basis each with

its own site-specific NEPA process and each with its own individual land use plan amendment.

BLM believes that by looking programmatically at the issues associated with utility-scale solar energy development, we will be able to develop a more comprehensive, consistent, and efficient program approach by which to address solar energy projects on public lands. The Programmatic EIS will identify public lands that are best-suited for solar energy development, mitigation strategies and best management practices to guide future solar energy development, and it will also look at the need for additional transmission corridors to facilitate solar energy development.

BLM believes that the Programmatic EIS will be key in advancing the understanding about the impacts of solar energy development and how best to deal with those impacts and that the resulting decisions will better

foster and support the nation's need for environmentally sound renewable energy.

BLM expects to amend land use plans in the six-state study area to adopt the solar energy decisions made as a result of the PEIS. These meetings are an important part of the BLM planning process as well as the NEPA process. We did include proposed planning criteria in our May 29th notice, and we are asking for your comments either tonight or in writing on those criteria before July 15th, the end of the scoping process.

Thank you.

MR. AVCI: Thank you, Linda. The next person who's going to speak is Lynn Billman. Lynn is a Senior Project Leader with the National Renewable Energy Laboratory, NREL for short.

NREL is providing technical support to the PEIS with respect to defining the solar energy resources and technologies.

MS. BILLMAN: Thank you, and I also

welcome you and thank you for coming to show your interest in these projects and the development on BLM lands.

I'm just going to go briefly over a little background on the solar technologies that will be considered in the process of this Programmatic Environmental Impact Statement.

You'll see on the slide here three simple topics that I'd like to cover quickly with you. We are certainly focusing in this PEIS on utility-scale, and we are defining that as about ten megawatts or larger for a particular project.

I'm also going to mention a little bit about the Geographic Information Systems that are used at the National Renewable Energy Laboratory and at Argonne National Laboratory and others, which have become a very key tool for fine-tuning examination of the possibility of projects like solar on statewide or region-wide areas.

And, thirdly, I'll mention a little

bit about some of the key -- one of the key federal policies that facilitate deployment and how that plays into the planning process as well.

Next slide. Brad mentioned two types of technologies that -- he mentioned to you before photovoltaics that works with the electrons from the sun or thermal technologies, concentrated solar thermal, that work with the thermal energy from the sun. This slide looks at a little different distinctions. When you do a solar project, the economics and the viability of the project often depend on the dispatchability; that means how well you can dispatch the electricity in accordance with what the utility load needs to be.

And solar technologies that have some sort of storage capability with them or sometimes an auxiliary power source, hybridized type systems, are called dispatchable, and we have three examples here.

I'll just mention them briefly and then talk about each one in a little more detail.

The upper left picture is a parabolic trough photograph. You may be familiar with that from the Kramer Junction area of California. That project has been commercial for about 15 years with very good performance.

The power tower is the third picture over. There is an operating system in Spain. There were a couple systems in California that have been discontinued at this point, but there is renewed interest in that technology.

And the third one that is -- we consider dispatchable is actually the fifth picture, the middle one on the right, and that's called a linear fresnel reflector. And that particular technology is relatively new. It uses flat mirrors, which are less expensive, focusing the sunlight onto a long tube that actually carries steam in the tube.

And the light passes through some fresnel lenses in between the mirror and the tubes and that concentrates the sunlight.

The other types of solar that we'll be looking at in this study are those that typically are not done with storage. They're non-dispatchable. And the first one -- let's see -- the picture is the fourth one over. It's called dish/engine technology, dish/stirling engine technology. Those are more modular systems and they are not yet commercial. However, there is some commercial interest in those already as well.

Concentrating PV is shown in the second picture at the top. That's one of the several types of concentrating PV.

And then flat-plate PV is down on the lower right and that's -- certainly most people have seen those types of fields before.

I'll talk first of all about the concentrating dispatchable systems. The parabolic troughs, you may be familiar with

the technology. It generally uses a parabolic-shaped mirror in a long set of these mirrors with a pipe down the center that carries an oil base or a fluid that can be heated, and then that hot fluid goes into the generating plant that flashes steam and generates electricity.

The central receiver uses a molten salt at the top, in that bright white area, and has, you know, all of that array of mirrors focusing on the central point. Those are intended to be up to 250 megawatts for peaking in bulk power. As I say, there's only one operating system right now in Spain; however, there is interest in all of these and that's why we're including them in this study.

The next slide shows you a little bit about why we wanted to mention dispatchability to you. The red line is a typical usage curve or hourly load for a utility where you begin using electricity at 6:00 in the morning and it stays at a high

level of usage from noon through, you know, the middle of the evening and doesn't taper off until, you know, well into the dark hours.

And the solar resource, of course, peters out at sunset. So that -- the green -- that's the yellow piece in the back. The green square shows you how you can extend the usefulness of the concentrating solar plants or the photovoltaic plants with using thermal storage or, you know, some other kind of storage, but thermal's the one that's being looked at right now.

Okay. On the next slide, some of the non-dispatchable concentrating technologies. As I say, the dish/sterling on the left there is about a 25-kilowatt unit. However, you can put something on the order of 400 of these into an array and come up with a ten-megawatt system.

The photograph on the right is a similar configuration of mirrors but, at the center, there's not -- oh, I should explain --

on the dish/stirling, the heat from the sunlight heats a fluid in the stirling engine which drives a piston and that piston moves back and forth and that's where the -- how the electricity is generated.

In the picture on the right, instead of a stirling engine at the center, there is a high-efficiency photovoltaic cell and, by concentrating the sunlight, you can use less of the photovoltaic material, which lowers the cost.

So, again, this is pre-commercial but they're being tested at Sandia and they are about ready to go commercial with the first plans.

On the next slide, there's some photos of some other -- at least two other photovoltaic concentrator technologies that are entering the marketplace right now.

All of these concentrating systems that I've mentioned focus the sunlight to about 500 suns, about 500 times the energy of

unconcentrated sunlight.

Okay. The next slide shows you some of the output from the Geographic Information Systems that we use and these have the capability to look at, oh, you know, a hundred or more different kinds of data and show something like solar insolation that is only on BLM lands, only greater than five kilowatt hours per square meter per day, and you can manipulate that very finely for various criteria.

The solar radiation data is based on satellite data, modeling, public databases, a wide variety of sources.

I mention the title at the top, "Direct Normal Insolation," is the type of sunlight that is useful for concentrating systems. It's what you have here in the Southwest where it's very, very direct all day, infrequently stopped by sunlight, and the direct normal is always measured at 90 degrees to the surface, and these concentrating

systems always track the sun so that it's always getting it -- the maximum amount from the 90-degree sunlight.

Okay. In the next slide, the only non-concentrating system that we're looking at, at this point, are the photovoltaic flat-plate systems. They come in varieties that are fixed -- you set them on the mounds and that's it. They have single-axis trackers. They actually have double-axis trackers on some of the concentrators as well. And these are two photos of a couple of commercial -- or utility-scale systems. One, the largest in the U.S., is at Nellis Air Force Base in Nevada at 14 megawatts. That's a single-axis tracking. There is also about an eight-megawatt system in Colorado that was installed I believe last year.

Anything else I should say there? I don't think so.

Okay. The next slide shows a similar map to the other one except this is global, and for flat-plate photovoltaics, they can generate

electricity from any type of sunlight, whether it's coming down directly or whether it's coming reflected from clouds, reflected from rocks or dirt. And so they can be used a little more broadly.

Let's see. Let's go to the next slide. The cost of these systems, obviously, are greatly impacted by state and federal incentives, and the one thing I was going to mention this evening was the federal investment tax credit. With that particular incentive, which has been around a good number of years, persons investing in solar systems can take a 30 percent tax credit and, on a large system, that is a significant -- that's a significant savings and a very large benefit to the industry.

This investment tax credit is set to continue through the end of 2008. There have been several attempts so far in Congress to extend it beyond 2008 but no resolution on that at this point in time.

If you show the next slide, I wanted to

make the relation to why this was important to a Programmatic Environmental Impact Statement. One of the things that is studied in this process is the socioeconomic impacts of proposed systems. And to look at socioeconomic impacts, you have to have some sense or some way to project what might happen in terms of solar developments over the next 20 years. That's the time frame for the Environmental Impact Statement.

And we use at NREL, National Renewable Energy Lab, we use a quite sophisticated modeling tool with hundreds of different factors that we can look at, and one of those factors is what happens with the investment tax credit. And if it's not extended, there is, according to the way we're looking at it, a probability of only getting maybe six to seven gigawatts -- that's a thousand megawatts -- by the year 2030. That's normally the end of the time period for the Programmatic Environmental Impact Statement.

If you go to the next slide, if you make the assumption that the investment tax credit

continues for another eight years, even though it declines 30 percent to a lower number, that still gives a significant boost to the solar developments in the near-term and you can reach a level of something like 40 gigawatts by the time you go out 20 years. So it's important to consider these economic impacts as well.

Okay. I think that is all that I had to share with you and, again, thank you for coming.

MR. AVCI: Thank you, Lynn. Now I will give you an overview of the NEPA process to sort of put tonight's meeting in context for the purpose of tonight's meeting.

I'm sure many of you have seen or have participated in NEPA activities. NEPA stands for National Environmental Policy Act. That results in an EIS.

Very briefly, the EIS -- any EIS, for that matter, is a document that provides comprehensive analyses of environmental and socioeconomic impacts of federal agencies'

proposed action and a reasonable range of alternatives to their proposed action.

It describes the purpose and need, the environmental impacts, and the potential mitigation measures, as well as providing cumulative impacts and the committment of resources and also describes how the public concerns were taken into account.

Now, federal agencies, whenever they propose a major federal action that can potentially have a significant impact on the quality of the human environment have to prepare an EIS; that is mainly the reason why the two agencies are preparing this Programmatic Environmental Impact Statement.

Now, depending on the proposed action, the EIS could be very site-specific. For example, if the proposed action involves building a specific project at a specific location, then the impacts are basically specific for that area.

If, on the other hand, if the proposed

action is a general programmatic action, then the document is not specific to a particular location but provides general broad analyses of the proposed technologies or the impacts associated with that.

In this case, the two agencies -- DOE and BLM -- have determined that since their proposed actions -- and I will get into shortly what their proposed actions exactly are -- are more programmatic in nature, the document also will be a Programmatic Environmental Impact Statement. So as you can see, the document then will provide basically generic impacts of actions from solar energy technologies and identify potentially applicable mitigation measures.

Now, we are here for a public scoping meeting. Where does this fit into the NEPA process? When the federal agencies believe that the action they're proposing requires an EIS, they go through what's called an internal scoping process. They come together internally and evaluate what the proposed action is, what the

reasonable range of alternatives are, and what impacts they are likely to analyze in the EIS. And then they put out what's called a notice of intent, NOI, in the Federal Register.

At this point, the process goes into what's called public scoping phase, and that public scoping phase is generally around 45 days. In this particular case, the NOI was published on May 29th and the public scoping period runs through July 15th. In this time frame, the agencies basically are looking for public input on their proposed action, alternatives that are being considered, significant issues that are being analyzed, any possible mitigation measures, and any available data that public or other agencies may have that would be pertinent to the analyses that they're going to be making.

It's only after this scoping period that decisions are basically crystallized in terms of what the proposed action and alternatives are and what impacts are going to be analyzed in the EIS.

Let's go to the next slide. Initially, when the notice of intent was published, these were the alternatives that were to be analyzed in the EIS -- in this Programmatic EIS. First one is the no action alternative. That's actually a requirement on -- by NEPA, that no action alternative involves what would happen basically if the proposed action did not take place. It doesn't necessarily mean do nothing because, in this case, if the proposed action didn't take place, then BLM would still continue, for example, to evaluate the applications on a case-by-case basis. That would not be this overall arching program that both DOE and BLM are planning to establish. It would be in isolation.

The proposed action, as described earlier, is basically developing programs, policies, and mitigation strategies related to solar energy development in the six-state study area. And for BLM, it also involves amending individual land use plans to adopt the new program.

Now, up until last week, there was a third alternative that was going to be analyzed in the PEIS. However, as Linda Resseguie explained earlier, because of the decision that BLM made concerning lifting the moratorium on new applications, that third alternative is no longer relevant.

At this time, BLM has not decided if there will be a third alternative and, if so, what that third alternative will be. And that's, as I explained in the previous slide, is very consistent with the intent of NEPA, that agencies have to basically take into account the input that they receive during the public scoping phase before they make their final decisions.

Next slide, please. Now, the public will have the opportunity to provide input in actually three stages of the process. One is during this public scoping period, which ends on July 15th.

There will be another opportunity after the Draft EIS is published. It will again have a

public comment period and there will be a series of meetings, such as this one, to obtain input, comments on the Draft EIS at that time. And the Draft EIS is currently scheduled to be published some time in the spring of 2009.

There will be another opportunity for public to provide comments after the publication of the Final EIS, which is currently scheduled for spring of 2010.

Now, I mentioned earlier the project website. The address of the website, as you can see, is solareis.anl.gov. I know a lot of you have visited the website because there were quite a few people who actually registered for this meeting on the site. If you have not done so already, I would strongly urge you to visit the website. It has a wealth of information about the EIS process, about documents that are being gathered to prepare the EIS, including the presentations that are being made tonight and the posters that you see around the room. They are all on the website. It has an online comment form

for providing comments on the EIS. And it also has an e-mail notification system that, by providing your e-mail, you receive notification on events that are important to the progress of this project. For example, if you had your e-mail address within the e-mail list, you received an e-mail last week when the decision was made to lift the moratorium.

Let me go to the next slide. Basically, a quick review of three ways of providing public comments during this scoping period -- at this scoping meeting. We will get into that very shortly. We will receive comments. You can provide comments through the website or by regular mail. And all the comments will be accepted through July 15, 2008.

Here's how you can submit written comments. Certainly, on the project website, as indicated before, but you could also, if you have any written comments, you can give it to any one of us -- myself or anybody at the head table or at the registration desk before you leave tonight --

or you can mail it to the address shown on the slide.

Now, as I said at the beginning, before we get into the public comment phase of tonight's meeting, we're going to have a brief question-and-answer period.

During this question-and-answer period, we have set up this microphone for both questions and also later for receiving comments. I ask that anybody who has questions for anybody at the podium come up to the microphone, state your question, you can either wait here until you receive the response or you can sit down and let the next person come up.

I would like to ask that when you ask your questions, please limit them to matters related to the presentations that were made earlier this evening and keep your questions to more like clarifying type of questions.

If it has any relation to comments, I strongly suggest that you hold those questions to the comment phase and put them into a comment

rather than a question.

So, with that, I'll open it to the floor and see if anybody has any questions. Come up. And when you come up, please state your name as well.

MS. JOHNSON: My name is Diane Johnson and I'm just confused. Will this Programmatic EIS replace individual EISs or are EISs not part of the process now? I'm --

MS. RESSEGUIE: Each project that is going to go forward now will have its own environmental impact statement. So it's required before the project can be approved and the right-of-way can be granted. So all of the projects that are in the queue and that will be coming into the queue, so to speak, will have their own Environmental Impact Statement.

In the future, when the Programmatic Environmental Impact Statement is completed, site-specific NEPA analysis will be tiered to this document, and so we expect that the environmental work will be streamlined and will be more

efficient because it will have the benefit of this over-arching analysis already contained in the Programmatic.

MS. JOHNSON: Okay. Thank you.

MR. AVCI: Anybody else? Please, come up.

MS. CHARPIED: My name is Donna Charpied. The first -- I have two questions. The first question is you talked about the liquid - the trough type of solar-generating electricity plants, and really what I understand -- it's kind of like you have lip-lock. I think there's not been enough transparency because we know that there -- not everybody -- it seems that there's liquid -- it's molten salt in there, and don't they have to come in like quarterly with moon suits to your community and clean out all that hazardous materials? So I've read and -- I was at a RETI Conference in April and this was talked about and I thought that was really bizarre. It just seems to be a really big secret. And I wish, Linda, when you talked about it, you wouldn't call

it just a liquid 'cause it makes it sound so innocuous when it is really, you know, pretty bad.

And the other question I do have is you talked about a project in Colorado, so why are we targeting the desert Southwest if you can make solar electricity in Colorado?

MS. RESSEGUIE: I think the first question needs to go to Lynn, the technology question, and she's the one that mentioned the -- I don't remember -- no, the one in Colorado. I was going to try to -- anyway, let me just address the Colorado -- Colorado is part of the six-state study area and BLM has one solar application in that state. So the companies who filed these applications -- I'm not sure you can say have targeted -- but they have concentrated on the desert Southwest.

MS. CHARPIED: "Targets" is a good word.

MS. RESSEGUIE: Okay. They have concentrated on the desert Southwest, and that's where most of our applications are, but we do have

one PV application in Colorado. But Lynn's going to answer the technology application.

MS. BILLMAN: The point I'd like to leave you with is that there are a wide variety of solar technologies that are being developed and different technologies use different materials, different amounts of water, for example. That's come up at meetings before. I don't know of any that require moon suits and quarterly cleaning, even for molten salt applications, so I'd be happy to talk with you a little bit more about that afterwards where, you know, your source of information is coming from.

MS. CHARPIED: Sure. Sure.

MS. BILLMAN: Okay.

MS. CHARPIED: And the last thing, about the tiering of the Programmatic EIR with the individual EISs, don't you think that kind of infects the public participation because the Programmatic -- they're going to say, We spent so much money on this and it's been vetted already, so these things are already pretty much taken care

of? It just seems to me that that that's an infection of the process and it shouldn't be done so piecemealed.

MS. RESSEGUIE: I'm going to take that as a question, not a comment, but it kind of sounded like a comment to me. But one of the things I did want to stress is that when we do site-specific environmental analysis for these projects, they'll follow a similar format where there will be a published notice of intent, there will be a public scoping period. Whether or not the public chooses to participate in that, I don't know, but each project will have its own -- it will follow the same format.

MS. CHARPIED: Thank you.

MR. AVCI: Yes, please.

MR. HORN: Good evening. My name is Andy Horn. I have a couple of questions for Lynn, I think, on a couple of the slides you showed. One was having to do with the projections for applications and installations of solar with and without the tax credit. And it looked in both of

those scenarios like after the 20-year period, that there was a tremendous spike in the installation and the production of solar energy. I just wondered what the -- I mean, are you just assuming that by that time, all the bugs will have been worked out and we're going to have a -- could you explain a little bit or elaborate on the criteria that were used to develop that or project that spike?

MS. BILLMAN: Yes. I don't know in great detail, but I do know that when the analysts prepare that, they take a look at making some guesses about one of the things that's the most difficult to project, and that is the availability of, you know, other energy sources that can compete, you know, more cost effectively with concentrating solar-type systems.

One of the things that affects that is what's gonna happen with carbon taxes.

MR. HORN: Sure. So in 20 years, you know, we're probably going to be more competitive with economy scale --

MS. BILLMAN: Right.

MR. HORN: -- and carbon competitiveness and everything else.

MS. BILLMAN: Right. And if you'd like more details on that, I certainly know the right person to put you in touch with.

MR. HORN: Well, I would.

MS. BILLMAN: And I'd be happy to take your card or your name afterwards.

MR. HORN: All right. I will give you one. The second question had to do with the dispatchability of solar technologies, and you talk about the PV being non-dispatchable, basically, and the -- some of the trough and the power towers being more dispatchable. And I've never seen solar trough characterized as, you know, pure dispatchable. I think the salt, the toxic salt technology, certainly has more -- because they store that in a tank and then recirculate it through the steam generators, you know, in the shoulder hours. But trough -- steam turbines, you know, they're just taking isopentane

or whatever it is or whatever -- I've just never seen it characterized that way as a pure dispatchable resource the way you had on that chart there. I just --

MS. BILLMAN: Well, you know, I think they categorized it that way because it is easier to hook it in with a tank system for one of those heat exchangers. Because it's not molten salt that runs through the pipes. The molten salt's used in a tank.

MR. HORN: No. I understand that. I understand that.

MS. BILLMAN: Right.

MR. HORN: But, you know, I just -- I think you're right. I think probably with any kind of a binary system like that, where you're taking a liquid and then heating steam, there is an opportunity to store heat and then --

MS. BILLMAN: Right.

MR. HORN: -- and then generate electricity. But I just had never seen it characterized that way.

MS. BILLMAN: Yes. There's more of the opportunity compared to something like PV, which is harder to store.

MR. HORN: Certainly. All right. You can give me some information on that criteria on the -- on the projections on the installation.

MS. BILLMAN: Right.

MR. HORN: I'd appreciate that.

MS. BILLMAN: Yes. I certainly will. Thank you.

MR. HORN: Okay. Thank you.

MR. CHARPIED: The first thing I want to say is at least four times we were thanked for coming here by you guys -- I appreciate that -- and I also appreciate you adding this extra scoping meeting.

My question is about the financing, and I want to refer to jojoba because that's what I do and am involved for 25 years. When we first started, there was a seven-to-one tax incentive. Jojoba is strategic material. We were going to get off our needs to foreign countries by using it

as a biodiesel high-speed machine, all this, so all these millions and millions of dollars, all these thousands and thousands of acres were planted with jojoba -- Desert Center, 6,000 acres abandoned; Arizona, 20. I mean, literally all this stuff went to hell. The only reason people did it was to get that tax money, and I'm really concerned that the large scale that this is being proposed at is just encouraging people and what are we going to do -- what are you guys going to do to make sure that this isn't a big, you know, land grab and they get all the money and we don't have any -- we're not energy-independent in 20 years?

What kind of guarantee do you have that we're gonna get something for all this taxpayer dough?

THE REPORTER: Could you give your name, please?

MR. CHARPIED: Oh, I'm sorry. My name is Larry Charpied. So if there's an answer to that, I'd be really happy to know.

MS. RESSEGUIE: Well, what my answer is -- would you come back and state that in the form of a comment.

MR. CHARPIED: I will.

MS. RESSEGUIE: Okay.

MR. CHARPIED: I will.

MS. RESSEGUIE: Thank you.

MR. AVCI: We had one other question back there. Come up, please.

MS. LEE: I'm Vanessa Lee and I am a student over at Holtville High School. I have a question referring to what plans or programs do you have for us students to be aware educationally at high school level about positive and negative effects of projects in our valley?

MS. RESSEGUIE: BLM does have educational materials on their energy projects because I have seen some of the handbooks and whatever. And if you give me your contact information, I will see that you get that.

What I am uncertain about is whether those educational materials include solar. I

looked at the brochures and I think it's actually sort of like a textbook. But let me see if I can find the information for you and Lynn's got a thought, too.

MS. BILLMAN: I can get you the website from the Department of Energy which has extensive materials on all of the renewable energy, energy-efficiency technologies, including solar, at various educational levels. Now, those would not be specific to your valley, but it would tell you about the technologies.

And I would just encourage you to hop onto that Solar EIS website and just follow it along because I don't care if you're in high school or not; you're gonna follow it and you're gonna learn a lot about how the process works and that is where you'll find out more specifically how it might affect your locale. So get involved.

MS. LEE: Well, see, because the thing is is that Holtville High School students have actually done a program over at the Salton Sea with just saltation with the water over there

through solar energy. And we were wondering if there were any other programs out there that we could possibly use down here for as much solar power as we can.

MS. BILLMAN: Yes. Let me get you some website information and then you and your teachers also can get involved in more activities. So come -- we'll work on it after.

MS. LEE: Yes. Thank you.

MR. AVCI: Okay. One more question before we go to comment period, please.

MR. TRAFECANTY: Hi. I'm Denis Trafecanty. I was wondering on these utility-scale systems that you're contemplating, ten megabytes and larger, and I know this is just the initial Programmatic EIS, but in the six Western states that you're talking about, there's a lot of state and national parks, preserves., conservancies, national refuges, national forests, monuments, etc., and also private lands that are designated by the local authorities as no growth. And I heard you touch on transmission, but are

you gonna give any consideration in this initial EIS to the fact that there's so many of these and, if you're gonna build these systems, it's gonna require transmission, most likely, and how are you gonna get them through all these or around all these so they're effective in going to metropolitan areas?

MS. RESSEGUIE: Let me explain as best I can. You may be familiar with the Programmatic Environmental Impact Statement that's going on right now for the utility corridors, the Westwide Utility Corridors, and that was an effort to identify necessary transmission and other corridor needs across the entire West, and it did look at a variety of needs and energy resources and it includes I believe Forest Service lands and BLM lands and -- more lands than just BLM lands.

What we have decided to do with the Programmatic is take a second look at the need for corridors because we were not certain that solar -- - we knew enough about solar when we started that project about where developers would be interested

in it to have identified corridors on BLM lands that might be necessary to facilitate solar energy development.

So at this point, the PEIS is limited in that we are just looking at BLM lands and the need to possibly amend our land use plans to provide for transmission corridors to facilitate specifically solar energy development. So at this point, we're not expanding that beyond BLM lands, although we've had some comments on that.

MR. TRAVECANTY: Thank you.

MR. BORCHARD: I can elaborate on that a little bit. The state is carrying out a study right now -- I think the title of it is the Renewable Energy Transmission Initiative, or RETI, and the state is looking at and evaluating the capability of the current transmission system and evaluating that compared to not only solar projected development but also I believe a wind and geothermal, so certainly our study will take advantage of analyses and data that's been prepared and analyzed by the state's RETI study

that's ongoing right now.

MR. AVCI: Okay. Here's how we will proceed with the comment phase of this meeting. Some of you registered online before you came here. Others registered at the door as you came in. When you registered, you indicated whether you wanted to speak tonight or not. I have the names of those individuals who indicated that they would like to speak and provide oral comments. I will call those individuals to the podium to make their presentations in the order in which their registrations were received.

After everyone who registered to speak has had a chance to speak, I will ask if there is anybody who had not registered but now would like to make comments and they will be able to come up to the podium and make their comments also.

Everybody who comes up to the podium to provide comments will have three minutes total to present his or her comments. If you are one of those speakers at the podium and you are making your presentations, when you reach the two-and-a-

half-minute mark, I will show you my yellow card. This will be an indication that you have 30 seconds to wrap up your comments. When you reach the three-minute mark, you will get the red card. That will mean that your time is up and that you should immediately conclude your remarks. If you are not able to finish your remarks in three minutes and you need additional time, you will have an opportunity to come back to the podium and to add to your previous comments at the end of the meeting after everyone has had a chance to speak.

There will be no sharing of time or passing of leftover time to another speaker.

Now, is everyone clear on how the comment phase of this meeting will be conducted? Are there any questions about that?

(No response.)

Okay. Then we will begin the formal comment phase of the meeting. When you come up to the podium, please get close to the microphone and speak directly into the microphone so that the court reporter can record your comments.

Before you begin your comments, please state your name and affiliation.

The first speaker tonight will be Denis Trafecanty. He will be followed by Helena Quintana and Preston Arrow-weed.

MR. TRAFECANTY: Hello. I'm Denis Trafecanty. I'm with -- I co-founded the Protect Our Communities Fund, which is at the San Diego Foundation in San Diego. And we're very concerned about this Programmatic EIS. We're concerned -- we're going to be tracking it closely to make sure your studies are sound and you're doing what you need to do to protect our natural resources.

Our forefathers designated a lot of land in our country that are the ones that I just mentioned a little while ago -- the National Forest, the state parks, the national parks. I think we all know that transmission is kind of an archaic technology, and these desert solar farms are things that are gonna create more transmission lines.

There's a Smart Energy 20/20 Plan that

was funded by the San Diego Foundation in San Diego which calls for in-basin photovoltaic; in fact, it's quite cheaper -- forgetting the transmission lines, it's quite cheaper than a proposed turbine engine solar farm that's been just applied for recently here in the Imperial Valley.

Another concern I have is that this is about BLM lands and, you know, we have -- in our community, we have a lot of farmers and landowners, large landowners, and they would like to participate in some of this, too. They would like to put some solar on their land and sell it to the utilities. But you know quite well the utilities won't buy anything that we produce on our lands if the BLM is giving them free land to develop it on a large-scale basis rather than our local landowners. Why don't they get a chance? I'm a power generator. I have solar on my house, 150 percent of what I need. I don't need -- even need to be on the grid, but I am.

You know, I went to the Riverside

meeting and I heard a gentleman say, You know, let's bring our soldiers back from Iraq and let's build these big utility farms. I want to state this: It costs a billion dollars a day to fight that war. With a billion dollars in one day, you can build for free to residences 40,000 rooftop solar systems. Think about that. I don't know that you need these solar farms out here in the desert, which is gonna create a lot of steel in the ground.

Deserts are part of an ecosystem, a balanced ecosystem. I don't know if you believe in God or who you believe in -- thank you very much -- but I think there's a lot of balance in what's in our country and in the world, and changing it with a million acres of solar panels must be studied extensively as it's gonna do extensive change, just like the Amazon forest. Please don't desecrate our parks, our preserves, our monuments for the commercial benefit of a few people -- foreign and U.S. investors.

Thank you very much.

MR. AVCI: Thank you, Mr. Trafecanty. Next we have Helena Quintana. Is she here?

(No response.)

She's not here. Preston Arrow-weed. Is Preston here?

(No response.)

Okay. These are the individuals who registered online. Apparently they were not able to make it to the meeting.

Next then we will have Deborah Dozier.

(No response.)

Apparently she is not here either. How about Robert Niemela?

MR. NIEMELA: My name is Robert Niemela. I represent AMA District 38 and I am speaking on behalf of the off-road enthusiasts, and I would like you to please take into consideration the land is being taken from the off-roader at an alarming rate and we're being squeezed down into a smaller and smaller area. So they become more dangerous to be active in those areas. So all I'm asking is if you take some

away, please give some back. And I would like it to be at a one-to-one.

Thank you.

MR. AVCI: Thank you, Mr. Niemela. Next we have Terry Weiner. Is Terry here?

MS. WEINER: Thank you. That was pretty close. Hi. My name is Terry Weiner. I work for the -- I live at 3606 Front Street and I work for the Desert Protection -- Desert Protective Council as the Imperial County Coordinator. I also want to thank you very much for adding this meeting to your list of scoping meetings. We really, really appreciate your taking the time and this is your last meeting and I'm sure you don't mind that at all.

While the Desert Protective Council has participated in desert lands management planning for five decades, including the involvement in FLTMA, the Desert Conservation area designation, and the passage of the Desert Protection Act, and we're pretty used to having the Southwest desert targeted for siting many projects which have high

impacts, projects that folks would prefer not to have in their backyards and for which developers would prefer not to pay, we have everything from bombing ranges to toxic sludge projects to nuclear waste dumps and off-road vehicle play areas.

To those who haven't had the privilege of really spending time here, you know, you don't realize that it's not a desert. It's just not a wasteland. It's a living, breathing ecosystem of community of soil, plants, and animals that's really important to the creatures that live there as well as the people who use it in the desert communities.

We do understand the urgency of coming up with solutions to address climate change but, in the process, we do not want to imperil the very resources that we have fought so long to try to protect. And we are not opposed to siting of all solar in the California desert. We understand the incredible solar potential out here. But there's also solar potential on our own rooftops and parking lots and on our commercial sites in the

cities across the nation, and we don't really believe that the deserts have to be the supply source for the whole country.

We don't nearly discuss conservation enough but this isn't the forum for that.

One thing that I have been reading about is that the renewable energy landscape has changed dramatically in the last year to 24 months as a result of the thin film photovoltaic developments and the very rapid expansion of this production.

The cost of commercial rooftop solar is now effectively the same or less than that of remote solar technologies because of recent dramatic drops in the photovoltaic costs. This has completely changed the ballgame, and so our petition to you is not to rush so quickly into this development that we don't give ourselves time to look at these other options.

The PEIS must consider how the solar projects will or will not be compatible with all of the BLM management plans. The PEIS must

consider how the solar projects will or will not be compatible with the BLM's mandate to prevent listing of species. BLM should retain the current one percent cap on disturbance in the desert wildlife management areas and prohibitions against development in the areas of critical environmental consider. Should consider an alternative that focuses on renewable energy development close to the load centers. The PEIS should consider an alternative that focuses renewable energy development adjacent to the high-voltage transmission corridors and should consider the cost of transmission that is required by remote installations versus the cost of locally distributed.

Thank you.

MR. AVCI: Thank you, Ms. Weiner. Next three speakers are Larry Charpied, followed by Donna Charpied, and then Carmen Lucas.

MR. CHARPIED: Excuse me. My name's Larry Charpied. I'm here representing Citizens for the Chuckwalla Valley. I'll go through as

quick as I can. I really believe right off the top, all environmentally sensitive or protected areas should be bypassed. We as a people and the Government have spent millions and millions of bucks and hours protecting these places, setting them aside, and this whole idea is to save the world because of these global things, then having these protected areas around when we do save the world might be a good idea.

Another important thing is acres per megawatt. When we look at the BLM list here, it's confusing. Some of them are taking 40 acres per megawatt and some of them are taking two acres. So if we're going to be efficient in this, I think we should be going to the two-acre-per-megawatt type of development as opposed to the 40-acre-per-megawatt development. And the reason I say that is the one development, OptiSolar, they're actually making the panels that they're gonna put out there, they're gonna get government money because of that, and they're putting up poorly efficient panels. I mean, how is that in our best

interest? It's in their best interest and we need to watch out for that type of situation.

The promoters need to be honest. They need to tell us if they're gonna put in a cement plant so they can put up all these things or if they're gonna drive, you know, 50 miles from a cement plant. The impacts -- the carbon footprint from a cement plant or trucking 50 miles, you know, and back and forth to put in these things, that needs to be considered when we call this stuff "green."

Also, they say 'little disturbance.' Well, you look at your slides. You see that the ground is clean and compacted. That is maximum disturbance. None of the critters -- tortoise, snakes, lizards -- none of those guys are gonna be living there, right, so that's the end of those guys. It's pretty important if we are trying to protect us because of this environmental problem with the greenhouse gases and -- we need to be protecting something in the future that needs to be there.

Karl Cicala from the Sierra Club says 200 megawatts a year are now being installed in urban areas. He says, Well, that's not enough. Well, when we start giving billions of dollars, guess what? Everybody in the urban areas will have those solar panels. We need to have them in the urban areas because seven to 14 percent is lost in transmission, so that means we need seven to 14 percent more out there just to make up for that loss in transmission. That's why we need to have it on the rooftops.

Karl also says that these proposals are all near-load. Well, Desert Center isn't, Mojave isn't, Blythe. These aren't near-load. Rooftops in urban areas are near-load. I'm a member of the Sierra Club, Excon, ConComm. There's a lot of us in the Sierra Club that do not agree with Karl and Johanna on this idea of large-scale development. We believe local is best.

Also, it's a very important security issue. You know, national security issue. If you have all these little areas where the stuff is

being generated on these rooftops, less likely for a terrorist to take out our electric, right? If you have these huge concentrated areas, more likely.

Right-of-way grants instead of land exchanges is a taxpayer ripoff. We're not getting any money for this.

You want me to come back and finish? I've got two more minutes to go. Thank you.

MR. AVCI: Thank you, Mr. Charpied.

MS. CHARPIED: My name is Donna Charpied. I am the policy advocate for the Center for Community Action and Environmental Justice. I work in our Desert Office. We have two other offices, one in San Bernardino and one in Riverside. And I want to talk a little bit about environmental justice with these projects.

You know, in our community alone, before your moratorium was lifted, there's close to 39,000 acres proposed in the Chuckwalla Valley and Desert Center area. You know, this is, to me, akin to domestic terrorism. We're in an area

already where our water is in overdraft. We have some of the cleanest air that you can imagine compared to western Riverside County where Mr. Borchard gets to see the air he smells. And it just really -- it isn't fair. I know that life isn't fair, but I would really like to see a very in-depth review on environmental justice issues in rural communities and taking away people's livelihoods.

I'm a farmer. If you use up all my water with these 39,000 acres proposed, I'm out of business. Plus the cumulative effects of these in a community. In this community, with the BLM's blessing, we have the proposed world's largest garbage dump that will use copious amounts of water and admittedly will deplete our aquifer. We have a hydroelectric plant that would be built underneath the world's largest garbage dump that would all -- and they plan on using groundwater. And now all of these solar panels. I mean, like how much do you expect a community to take?

I also believe that in how you're doing

all of this, you're pitting communities against each other. The *Los Angeles Times* has reported that -- or, excuse me -- the *Press Enterprise* had reported that 3500 people could possibly lose their properties in Rialto, Colton -- oh, gosh, there's another city. I'm sorry. I can't remember -- for the transmission line if they do the transmission lines this way instead of going through April Saul's Preserve. So that of course makes April happy that she's not going to be having transmission lines and it makes me happy, too, because we shouldn't be going through any sensitive areas whatsoever. But then here are the people in the areas where their lands are going to be taken away. Now, that's really important. That's just unbelievable stuff what you guys are doing here.

And to take land from eminent domain for solar when the beauty of solar -- transmission for solar is its individuality, you wouldn't need the transmission lines.

Last April, Governor Schwarzenegger was

on top of a warehouse with Southern California Edison, I believe it was, and they're gonna do a solar -- they're gonna do a project up there with solar on all of these rooftops and they're going to make enough juice -- thank you -- for 150,000 homes. That's really significant. Do you know how many warehouses are in urban areas that this could be happening to? I just think, to reinforce what other people are saying, I think this is just a huge land grab. Point made.

I would like to see some really bonafide studies of how doing these projects is going to reduce our dependency on foreign oil when we see the increase in the goods movement happening, the proposals to build inland ports, which would increase the trucks and trains, that will increase the need for fuel, that will pour heavy pollutions into communities like Loma Linda who I think is something like 1500 people out of a million die each year because of diesel pollution. How is this benefitting anybody except the pocketbooks of these developers?

I might come back. Thank you.

MR. AVCI: Thank you, Ms. Charpied. Next, Carmen Lucas, please.

MS. LUCAS: Thank you for the opportunity to come before you and say a few thoughts. My name is Carmen Lucas. I'm a Kumeyaay Indian from Laguna Mountains. This desert and the mountain areas is part of my traditional landscape. I work with some archaeologists all over San Diego County, Imperial Valley, so I have a very good understanding in personal exposure to the land from coast to coast, so, to speak. That would be the Pacific Ocean to the Colorado River.

You have an archaeologist that works for BLM, Carrie Simmons, very nice lady. She doesn't have any help, so to speak. When you consider how much landscape is involved in these types of projects, I think it's crucial that you understand what's really involved here as far as the pre-history is concerned.

I understand we're in different times

and I can't help that. I can address an obligation to my ancestors and to the remains of those ancestors. Our traditional cultural landscape goes from the Pacific Ocean to the Colorado River, up to Riverside, and below the border.

Our folks lived in this environment successfully with the rhythm of life and with the rhythm of this environment, with no clothes, no money, and yucca sandals, and they were able to move with this rhythm of this environment successfully continually for over 10,000 years. I think there's something to learn there.

In the end term, we have a different society here who's very focused on materialism, money, and it's never enough. Somebody's always thinking, How can I get more, and look at the greed that we have today. I can't help that, but I want the opportunity to locate our ancestral remains. This desert is a very sacred environment. A lot of creativity has come out of it over the years. Even in your society, you've

had great authors, great musicians create their music and their wisdom in environments such as this because it offers that magic essence of place.

We need to identify those beforehand. You cannot do that with one archaeologist. You cannot do that by subcontracting out archaeological cultural management companies where they all mean well. They're the same as you; they're out there to make the money. They hire youngsters who do not have a trained eye.

I have asked many, many times that Native Americans be allowed to participate in the ground survey of any development area. We're familiar with what we're looking at. More importantly, we know how to find our human remains. We deserve an opportunity to identify sacred lands and offer up a prayer to our ancestors and do our best to protect those areas.

I'm happy to talk to anybody about any of this. If you need to contact me, I've left you my address. I'm happy to make site visits with

you to help you better understand and visualize what I'm talking about.

Again, thank you for the opportunity to express my thoughts.

MR. AVCI: Thank you, Ms. Lucas. Next, we have Ken Wallen, followed by Donna Tisdale and then Michael Cox.

MR. WALLEN: First thing I should point out -- my name is Ken Wallen and the post site for the solar power plant is going to be only 15 to 20 miles from my mother's home site where she lives. This place was a homestead that was from my grandfather and yet I am still very strongly for it. The reason that I am so strongly for solar power is because it's a lot better than having a big old coal plant that's going to be sputtering out coal dust, and I know about potter ash and that stuff because I do -- I have an environmental A.S. behind my name also.

And like I said, yes, the part of the desert that you guys are talking about out by Ocotillo, my mother rode her horse many a times

out there. My nephew -- I'm sorry to say that this gentleman that was from the -- my nephew rides his motorcycle out there, but I realize that we have to have alternative energy.

Everyone keeps talking about building these solar panels on their roofs. That is a very excellent idea. But it's not going to meet the total demand. I'm sorry. It's going to be right next to a place that I love. But I realize that I have to give up something if I'm going to remain in the lifestyle I have grown up with.

And like I said, solar power is a lot better than coal or oil. These are changing the environment, these power sources, and I am not going to have a nuclear power plant near my place.

So, again, what are my alternatives? Solar or all these others. I'm gonna go with the solar plant. Let's face it -- that's a little bit easier to digest. But, again, I am a local person that lives here in the Imperial Valley all my life and my parents' place will be affected because it's only 15 to 20 miles from it.

Thank you very much.

MR. AVCI: Thank you, Mr. Wallen. Donna Tisdale.

MS. TISDALE: Hello. Donna Tisdale. I actually chair the Community Planning Group in Boulevard, which is in Eastern San Diego County. I'm here representing myself tonight, though. I'm also the head of a non-profit called Backcountry Against Dumps.

I was born and raised here in Imperial Valley. I've lived up in Eastern San Diego County for the last 30 or so years and I've watched this happen before. It's kind of like they say -- deja vu all over again -- reminiscent of the late '70s and '80s when the oil embargo forced people to look at renewable energy, and what really stopped that, I think, was when the -- we call them "the suits" -- all the utilities got together and decided they didn't like paying property owners for the energy that they bought back.

At that time, if I remember correctly, private owner had solar on his roof got paid fair

market value for the energy he generated. And if we had something like that again today, I don't think we'd be looking at trashing our deserts because people would be rushing to do this. If the private person were offered the same tax credits and incentives and offered a fair market value for the energy they generated, we would be not in this position.

I'm sorry this moratorium was lifted. I don't think it should have been. I see a serious lack of staffing for reviewing all these projects. We've got the solar, we've got the wind turbines, and now you're doing the changes to all these land use plans. You know, these people are human -- most of them -- and, you know, people can only do so much.

I've also got major concerns with the source and the amount of water use in these various projects in a desert environment. Are we going to be fouling farmland? Are we going to be, you know, overdrafting aquifers? This all needs to be dealt with.

We also -- I'm really concerned about the massive increase in transmission. Certain areas are gonna be sacrificed. Certain communities are gonna have to face multiple projects like this and it's overwhelming for individual communities and people who are trying to work to earn a living -- I understand you've heard all this before and it's kind of, you know, not very interesting, but this is our opportunity to talk to you.

I happen to live in one of those communities that's gonna be sacrificed up in Boulevard. We're dealing with an update to our land use plan. BLM, they decided to downgrade our visual resource management classification simply because it had a good wind area there -- 17,600 acres PPM Energy got a right-of-way on a signature without any public notification. We protested that.

We're also dealing with multiple transmission lines. And, like I said before, if we focus more in the urban area where the energy

is used, then our rural communities wouldn't be trashed and people wouldn't be losing their homes and properties, eminent domain for these large transmission things.

I also believe there needs to be a mandatory requirement to remove abandoned projects because I see that happening in the future. We had that happen in the '80s with a wind turbine farm in Boulevard after the blades started shedding and they had to keep closing our road.

Kumeyaay Wind Farm in Boulevard -- I know we're talking about solar now, but that's a 50-megawatt project and you had to solicit it for 80 megawatts because they don't use all the energy that's generated.

What's gonna happen here with all the solar energy? Is there actually an end use for it? Are the utilities that are supplying gas-fired power gonna allow their energy to be ticked off the line to move renewable energy?

I noticed on the wall here, there's one poster that says there's gonna be gas-fired power

at some of these projects. That's the first I heard. I just heard that was gonna happen at Stirling. So when they're burning gas -- I see you -- when they're burning gas, are they gonna get paid the same amount of money at the high rate they're getting paid for the -- for renewable energy? Who is going to be monitoring them? We had a plant here in Imperial Valley that was supposed to burn alternative fuel -- ended up burning natural gas. So who's gonna be monitoring that if they have a gas line and they're -- and turbines there?

Thank you.

MR. AVCI: Thank you, Ms. Tisdale. Michael Cox.

(No response.)

Apparently Michael Cox has left. Next, we will have Buz Schott, followed by Dave Singleton.

MR. SCHOTT: Good evening. Thank you very much. My name is Buz Schott and I'm representing Stirling Energy, which is quite

timely. First of all, we appreciate your work on this project. We think it's very smart of BLM. We think it's a good use of public lands to promote solar energy. It has a great benefit for the public as well as the environment.

Stirling Energy has proposed a plant just east of here -- or just west of here -- excuse me -- near Ocotillo for 750 megawatts of power on predominantly BLM land. We filed our application with the CEC and the BLM on June 30th, and so we're moving forward with that process.

As I said, it will generate 750 megawatts of power, all clean power. There is no natural gas involved in it. There's no burning of gas involved in it. There's no emissions whatsoever from it. The gas that's involved is called -- it's hydrogen gas. It's a closed system hydrogen gas system. The heat expands the gas, drives an engine, and then the hydrogen gas is then cooled and goes through the process again. So Ms. Tisdale would not have to worry about any burning of natural gas of any kind, so there's

nothing involved with natural gas.

We have power purchase agreements with San Diego Gas and Electric for up to 900 megawatts of power. So the agreement to buy that energy is already in place. It's approved by the California Public Utilities Commission. So there is a use for the -- for the energy.

I'm pleased to see that you're also looking at transmission, both the DOE and BLM. It is critical to getting the power into the load centers, so that's one thing that has to be addressed as well.

There's adequate transmission for our first phase so we can continue -- we can start our project, move forward, but there will be the need for the Sunrise Powerlink or additional transmission to get the energy into San Diego.

There's huge benefits from Stirling Energy and other solar energy. Stirling Energy is by far the most efficient technology available. It's more than three times more efficient than any PV system. And that's not from our work. That's

from the work at Sandia. So I don't have to tell the U.S. Government about that. That's done by the Sandia National Laboratories. They look at it, they test it, so we're -- we believe that there needs a balance of solar energy. You need photovoltaics on top of rooftops. But you also need central plants as well.

It will create jobs. It will create income for the -- revenue for the economy, so there's a lot of side benefits as well. So we're pleased that you are working in partnership with the solar developers.

Thank you very much.

MR. AVCI: Thank you, Mr. Schott. I should have mentioned this at the beginning of the comment phase. I apologize for not doing it.

Please when you come to the podium to make comments, do not address your comments to another commenter. We do not want this to turn into a dialogue among the commenters. Please limit your comments to the scope of the PEIS.

Next speaker will be Dave Singleton.

MR. SINGLETON: My name is David Singleton. I'm with the State of California Native American Heritage Commission and, you know, our role with these projects, we're first -- we're the state trustee agency for the protection and preservation of Native American burial grounds and cultural resources.

The way we do our work is we're not a regulatory or an enforcement agency, but we work in partnership with local tribes and Native American organizations through the consultation process that Linda mentioned earlier that's encouraged under NEPA and certainly under the state environmental laws.

We are concerned hearing from tribes, you know, about the -- about the cumulative effect, in particular, of not only the solar but the other energy projects. We're certainly supportive, you know, of the federal policy goals of developing renewable energy. But we're concerned that, you know, that the tribes feel that there's an environmental justice, you know,

issue here and that they want to be consulted with regard, you know, to where those projects occur and how they occur, both in terms of, you know, direct, indirect, and cumulative effect.

Now, in the desert area, the project area, Kern, San Bernardino, Riverside, Imperial, San Diego, you know, all areas of my responsibility with the Native American Heritage Commission, there are thousands of Native American cultural resources. And, you know, we urge that the Bureau of Land Management consults very carefully with local tribes, such as Carmen Lucas here, such as Preston Arrow-weed from the Kochan Indian Nation, and other tribes in this general region because, you know, those cultural resources and burial sites are at risk, in our opinion.

Now, our preference, where there are identified Native American cultural resources, is avoidance. We certainly think that looking at the urban alternatives, you know, deserves merit, you know, so that these projects will not be at the expense of the delicate ecology of the desert of,

you know, rural America and, in particular, Native American cultural resources.

Thank you.

MR. AVCI: Thank you, Mr. Singleton. We have now come to the end of the list of the individuals who have registered, pre-registered to speak. I will now open the floor to others who have not spoken so far. If you would like to speak, if you would like to provide comments, please raise your hand and I will call you to the podium.

Yes, please. And when you come to the podium, please clearly state your name and your affiliation.

MR. O'SHEA: Good evening. My name is Dennis O'Shea. I run a water purification equipment design consultancy in Ocotillo.

I had some prepared comments today and I was on the list for speakers who signed up online, but I realized that the comments themselves were too project-specific and would be out of the context of what it is that we're doing

here tonight.

One of the things as I listened to the progress of the meeting or of the -- yes, the meeting -- one of the things that dawned on me is that there doesn't seem to be any shortage whatsoever in large solar projects. There seems to be quite a lot of them. But the issue of transmission seems to always come up and does seem to be a very sensitive subject and it will probably be well discussed and debated.

I was wondering if at some stage we could find out whether the National Labs, the powers that be, whomever, are doing something about transmission lines, about the transmissive features that would be so essential to the central production of power for solar.

We've heard the comments about how one alternative might be better than the other but, quite frankly, we have a situation, I believe, that we might have a need for that excess of power that right now doesn't have anywhere to go. We might be in a situation in which the -- perhaps

the environmental prerogatives that a lot of us so prefer will need that -- the lack of impact within other contexts that solar power in this size plants will provide.

And if we could get some -- at some stage some inclusion of the -- addressing the aspect of transmission in the PEIS, it might be helpful to put another context in what's going to be an intractable part of the whole undertaking.

Thank you.

MR. AVCI: Thank you. I see one more hand back there. Please come up.

MS. LEE: Well, as a Holtville student --

MR. AVCI: Please state your name.

MS. LEE: My name is Vanessa Lee.

MR. AVCI: And could you speak into the microphone a little bit more.

MS. LEE: I am Vanessa Lee. I am a student of Holtville High School and we are actually very solar-powered and I recently noticed that there are a few problems about environment

and everything.

I am speaking on behalf for those -- some students over at Holtville High. We do really enjoy our environmental area and everything, but solar -- the solar plant that you are talking about, we think it's a great idea. But the problem is that it is taking up areas and we think it is actually better to do it through urban because one of our buildings in our actual school is completely solar power. In fact, on the building, it actually says that it's powered by the sun. We even have solar-powered fountains there as well.

We think that if you give it a chance, because I have also recently heard that there's some who are actually worried for the plant, we are for that, too, but we think it's better for urban because we could actually get more power done as we have done it so far at our school.

If we could do that at our school, I think if you do it urban, basically what I'm trying to say is I think it would be better if we

tried it publicly in our own homes at first instead of the giant areas and acres of these plants.

Thank you.

MR. AVCI: Thank you. Is there anybody else who has not spoken so far and would like to at this time?

(No response.)

Okay. I know we have at least one. Any individuals who have provided comments previously and would like to add to his or her comments, please come up and state your name and affiliation again.

MR. CHARPIED: My name is Larry Charpied. I represent Citizens for the Chuckwalla Valley. I'll make this as quick as I can.

I wanted to reiterate again the right-of-way grants instead of land exchanges is really putting us taxpayers -- we're not gonna really get anything for this land, so it just blows my mind. A 26-mile block of land for this one project is not a right-of-way and they should be made to pay

fair market value for this land. Jiminy Criminy.

Twenty-year life span for these projects is not a solution, is a Band-Aid fix, you know. Come on, you guys. Why are we doing this in a massive scale? Prudent business dictates that we start small and, if it works, then we expand. The whole issue here is government money and government land. They're not -- it's not energy independence.

If energy independence was the issue, then there would be solar panels on every residential roof and every commercial building in the urban areas. So -- and the government would be requiring this if we were concerned about energy independence. What we're seeing here is a continuation of keeping us dependent on energy companies and, as the price goes up, just like Edison just cut off 124,000 people's electric because they couldn't afford to pay their bill. You know, the government should be giving these people money so they can run an electricity -- if we're really interested in the people and how much

it's gonna cost, these types of issues need to be addressed.

Okay. I wanted to again say that -- real quick about jojoba and I want to know how we are going to make sure that this tax incentive money actually goes into getting this energy out there. We saw a seven-to-one tax incentive, jojoba being on the strategic critical materials list because it was gonna get us off our knees to the oil-producing countries. All that money was spent, all that land was tore up, with everything gone, and now we see these huge massive abandoned jojoba fields. So we got nothing for our money out of that.

Personally, Donna and I did because we actually produce jojoba and sell it.

Lastly, and very important thing, solar is not gonna stop any coal, oil-burning plant. It's not gonna stop any coal or oil-burning plants. All solar is gonna do is meet partially the demand increase caused by population growth. So we're not looking at any panacea on fixing the

-- cleaning the air or anything like that. All we're looking at is making a lot of investors money at the taxpayers' expense, and I would hope that you guys making these decisions would be prudent about our tax lands and our monies.

Thank you.

MR. AVCI: Thank you. Anybody else? In fact, I think I see somebody who has not spoken before.

MR. GROGAN: Thank you. My name is Larry Grogan and I represent District 2 on the County Board of Supervisors here for Imperial County, and I want to thank you for coming and holding this hearing. As you can see, it's a sensitive subject. Any time that you start to talk about energy, everybody has an opinion.

This is also my third time through the energy process. Back in 1973, '75, I was working in the energy field of geothermal and we went through this -- much of the same process, much of the same hearings, much of the same stories, much of the same concerns, and some -- many of the same

issues regarding geothermal about -- all the myriads of concerns that you hear now, we've heard before.

Unfortunately, nothing was solved. Geothermal, while it had possibilities and certainly has a future, without the tax incentives that was necessary, it just was not economical because of the cost of producing energy from such deep wells here and certainly at the Salton Sea where individual wells can cost as much as $14 million.

It's hard to describe to someone what solar can really be without having examples that we can point to and say, Yes, we are going to cut down our carbon emissions; yes, it is going to be efficient; yes, we will not have all the noxious oxides of gas-fired or oil-fired plants.

And yet if we're going to have a future, it certainly is going to have to be away from hydrocarbon. You know, we look today -- and I'm just going to mention, you know, at the Iranian missiles that they had. Forty percent of

our oil comes through -- the oil of the world comes through the Port of Hormuz. And if that were to shut down just shortly, I mean, we would be down to 70 percent of what we have here in the United States.

It is not just the fact that we have to rely on oil, but it's just all the energy we have that is intermingled and, without a solid energy policy, and that includes both solar and geothermal, wind, and obviously I think nuclear, we still are wandering about. We really have to set some priorities, and I think solar is certainly a pillar which has to be as part of that house.

So, again, I thank you for coming. We appreciate your patience. It's not always easy just sitting and listening and not having comments, but I certainly understand and thank you.

MR. AVCI: Thank you. I see one more hand. Please come up.

MR. TRAFECANTY: Denis Trafecanty from

Santa Isabel. You know, Governor Schwarzenegger indicated just recently that we have a water shortage in California. And one of the problems that we have, especially in San Diego, is our dependence on that resource coming from somewhere else besides San Diego.

Okay. Now we're talking about -- I agree that we have to reduce our dependence on foreign oil, but I think San Diego, like a lot of metropolitan areas, they have to figure out a way to reduce their dependence on energy coming from outside of their metropolitan area. There is no way possible that it's cheaper to build a solar plant out here in Imperial Valley or the Mojave Desert compared to having that solar produced on rooftops, on parking lot structures, on buildings because the developers don't want to talk about what it takes to get it into the city and the city is not -- is still dependent on the solar coming from somewhere else.

It's just like this Imperial Valley substation over here. They're running -- I.D.

runs their power lines through it, the Southwest Powerlink goes through it, and now the -- they want to build the Sunrise Powerlink right through our -- right through our state park. You know, our forefathers developed all these areas for the future -- for our future generations, for us, for our children, for their children. We're gonna sit here, all of us in this room, and decide to de-designate those lands to drive trams of steel right through them? Come on. We can't do that. We won't do that. We'll fight tooth and nail until the very end. We'll be talking about this in 2020 because we're just not gonna let it happen. We're the public.

San Diego shouldn't be dependent on importing energy. It should be developing its own energy there, and we have a plan that's much cheaper than building any kind of a solar plant, whether it's Stirling or someone else, by having rooftop solar in San Diego. It's called the Smart Energy 20/20 Plan for San Diego and anybody else in this -- in this state or in the six states that

you're talking about has a similar situation.

We're gonna keep saying please don't destroy our parks, don't destroy our forests, don't destroy our preserves, don't take our homes, don't poison our lands, and don't darken our skies. Don't threaten our lifestyles. Don't destroy our back country with power needs. Make our cities sustainable and self-sufficient for the greater good for all of us.

Thank you.

MR. AVCI: Thank you. Please.

MS. CHARPIED: Donna Charpied, the Center for Community Action and Environmental Justice, and I promise to make this really quick.

Now, I don't think anybody argues the point that solar panels are a really good thing. What our argument is, is where you're planning on putting them and putting them the closest to the people that need them is where you should do it. I believe -- a lot of people believe, not just me, that you should not use any undisturbed lands at all. You can use -- there's -- supposedly, a lot

of these new plants are going to be decommissioned within the next ten or maybe even sooner years. Why not put those solar panels there? You already have the transmission lines happening. Why not put them in closed dumps where land's already disturbed. Again, the rooftops -- we'll bang that drum until you guys finally get it through your heads.

And not one housing project -- like the Tejon Ranch right now, there's gonna be a huge development. Developments like this and other developments should not even be considered unless they have an alternative energy element included in them.

My husband was a little wrong on that *L.A. Times* article. They reported that it was 145,000 people who they had to cut off their electricity because they couldn't afford the bill. It's really important to know the true cost of what this is gonna be to the consumers.

I know on my electric bill right now, there's a charge for when they decommissioned the

Palo Verde nuclear plant. How much is the charge gonna be on my bill and everybody else's bill when we have to start cleaning up after 30 years the destruction they did to our desert with their solar panel because, after 30 years, I don't think you're just gonna let them leave it there, are you?

Coalinga has a solar facility up there, and what they're using to help with the generation is a manure burner. I'm a very cynical person and sometimes with good reason. I'm really afraid that with a lot of these solar plants that are designated in the desert, they might decide to, Hey, why don't we do some -- burn sludge, you know, human waste and those things. What are gonna be the impacts of that kind of stuff? I mean, like once this camel gets his nose in the tent, we're gonna be in really big trouble.

And I was really remiss, and I'm embarrassed that I never mentioned Joshua Tree National Park that is in my backyard and I have fought the Eagle Mountain dump furiously for the

last 21 years to protect it. I don't think I have -- I'll rephrase that -- I do have another 20-year fight left in me and if anybody tries to harm that park again, get ready because we're not gonna just -- as the gentleman said before, we're gonna -- we're gonna cry loudly and we're gonna cry long until you hear us.

Thank you.

MR. AVCI: Thank you.

MS. CHARPIED: Thank you.

MR. AVCI: Is there anybody else who would like to add or would like to come up to the podium to present for the first time? Please, come up.

MS. WEINER: Thank you. Terry Weiner, Desert Protective Council. I just wanted to ask the recorder if she has been able to record all the list I was running through very quickly?

THE REPORTER: Yes.

MS. WEINER: You're amazing. But the other -- but I did -- forgot to mention a very important hazard in the desert areas, which is

earthquake hazard. You know, I'm surprised we didn't feel an earthquake while we're sitting here tonight. So that has to be considered in the EIS, too. Thank you.

MR. AVCI: Thank you. Anybody else? Okay. Apparently not.

MS. TISDALE: Oh, I have something else.

MR. AVCI: Spoke -- okay.

MS. TISDALE: Just real quick. I just wanted to remind everybody to pay attention when your BLM land use management plan is being revised because you need to take the opportunity to -- this is serious -- and if they get those plans changed, it's too late to make any comments. So pay attention.

Thank you.

MR. AVCI: One last time.

(No response.)

Thank you all for coming. Special thanks to those who provided comments. Just a reminder that the comment period for the PEIS runs

through July 15, 2008. If during this time you should have additional comments or comments for the first time, you can send them to the address that I showed on one of the slides previously, but also you can see it on the poster on the side here.

If you have anything that you'd like to turn in this evening, again, you can give it to me or any one of the PEIS staff with a badge before you leave tonight.

You can also log onto the project website, solareis.anl.gov and provide your comments that way.

At this time, I wish you all a safe trip back home or wherever your destination might be. It is now 8:34 according to my watch and this meeting is officially adjourned.

(Meeting adjourned at 8:34 a.m.)