Transcript

Solar Energy Development Programmatic EIS Scoping Meeting held in Riverside CA, June 16, 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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MONDAY,
JUNE 16, 2008

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The above-entitled meeting convened at 6:15 p.m. at the Courtyard Marriott, Riverside, 1510 University Avenue, Riverside, California, Karen Smith, facilitator, presiding.

PRESENT:

STEVEN BORCHARD
Bureau of Land Management

DOUG DAHLE
National Renewal Energy Lab. (NREL)

JOHN GASPER,
Argonne National Laboratories

HEIDI HARTMANN,
Argonne National Laboratories

LINDA RESSEGUE
Bureau of Land Management

FRANK WILKINS
Department of Energy

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Adjourn

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

6:15 p.m.

FACILITATOR SMITH: Okay. Good evening. My name is Karen Smith, I'm with Argonne National Laboratory and we are working on behalf of DOE and BLM to prepare this Programmatic Environmental Impact Statement. I assume you're all here for the public scoping meeting for the solar energy development PEIS.

I want to apologize, I guess there's been some confusion about the start time and, just to clarify, if any of you are going to be attending additional scoping meetings the doors open at 6 and the presentations begin at 6:30, so if you're going on our traveling road show plan accordingly. That's going to be the start times for future meetings and I apologize for any confusion this evening.

We're going to start off with a

series of presentations and then we're going to get as quickly as we can to the main point of the evening which is your public comments. And I'd like to introduce for you Steve Borchard, he is the California Desert District Office Manager.

MR. BORCHARD: Good evening. I see lots of familiar faces in the audience. Thank you for coming tonight, thanks for coming to this public scoping meeting about 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 development Programmatic Environmental Impact Statement, or PEIS.

Our agencies believe that preparing a 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 need for renewable energy.

The BLM already has over 125 applications in the pipeline for solar rights of way in energy. The potential of these sites alone is enormous -- 70 billion watts of electricity, or enough to power 20 million 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, economic impacts associated with solar energy development on BLM-managed public lands in six western states. Those states are 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 energy development while carrying

out their respective agency missions.

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

FACILITATOR SMITH: Thank you Steve. The next individual I'm going to introduce is Frank "Tex" Wilkins and Tex is from DOE in the Solar Energy Technologies program and he's their team lead for the PEIS.

MR. WILKINS: Hi. I thought I'd give you a little bit of a background in why DOE is interested in all this, and it all goes down from two of the basic goals from the Department of Energy, and one is to add energy supply from diverse resources, including renewable energy, and the other is, although sort of the flip side of that is to do that in a way that is environmentally

sensitive. So those of us in the solar program think that we hit the ball on both ends in that solar certainly is renewable and it doesn't create any greenhouse gases when you're generating the power, so therefore we think it's environmentally good and it's going to last a long time without the need for any fossil fuels.

A little bit of background about our program in solar energy. This year we had a budget of around $170 million dollars, but as you can see on the slide there 90 percent of that money goes towards research and development. Basically, what we do is research and development. We fund industry, we fund our national laboratories and universities to do work that reduce the cost and increase the reliability of solar technology. We want to get that technology so that it's competitive with other fossil fuels.

We also though have another category called Market Transformation, which

is about the other 10 percent of the budget and that we work with a variety of states with other organizations to try to lower the barriers of solar energy deployment so that we can get more solar power into the country, and this PEIS is part of that market transformation although it's a small part of that 18 million.

In the solar program there's two basic kinds of technologies, although there's variations of each. One, and probably what you're most familiar with, is photovoltaics. It goes on houses, it powers the space shuttles, it also powers phones along the highways. So generally, mostly what it does is on very distributed applications. But you can put modules together in large quantities and also have it produce a lot of power for a utility scale project.

The other technology is concentrating solar power, and these tend to be generally fairly large and by and large the

application goes towards large scale utility projects. And indeed it's the large scale utility projects that this PEIS is really focused on.

So why are we interested in working with BLM? Well, two things. One, for a solar project to really work you need to have a very intense solar radiation and the United States is blessed, particularly in the South West the six states that we're dealing with, has some of the best solar resources in the world. In fact, when you consider that there's very large demand centers throughout that area, it is probably the best in the world.

The other thing though is that these tend to be large systems. Each megawatt requires at least five acres so a 125 megawatt system, which is sort of in the medium size of some of these things, would take up to 2 square miles so you're talking about a lot of land and turns out that the federal

governments owns a lot of land in the Southwest and most of that is managed by the Bureau of Land Management and indeed they have 119 million acres in those six states.

So we're interested in this because the sun is here and the land is here.

What we hope to get out of this? Primarily, we want to see what land is available, both from a technical and environmental point of view.

Now we know the technical end of it, that means essentially you need the best solar resource and the land has to be fairly flat, you want to have a certain amount of contiguous so that you can get a large plant in one spot. But the other is the environmental aspects of it and that's a little bit foreign to us at DOE but it's something more in line with what the Bureau of Land Management works with. And indeed the point of these meetings and this environmental, this PEIS, is to get to the

heart of some of those.

We also want to establish a policy that shows, okay, if we at DOE are going to put some money into some of these projects, what are the best management practices, how do we minimize the impact to the environment?

It's going to help the developers that are going to be building these projects in that what we learn through this they'll be able to tier off of. That means that when they do an environmental impact statement on their particular area for their project they won't have to learn the things that we're going to learn through this process.

And from the analytical part of me, I'm an engineer, it'll get us better information so that we can more accurately model the impact of solar energy in this country from the point of view of how much power it can possibly provide, how many jobs it can create. This technology tends to be capital intensive which means it requires a

lot of people to build it and a lot of people to maintain it, and also what potential it has to mitigate climate change because climate change is becoming more and more of a national issue and we think solar energy can play a role in helping us along the right path to that.

FACILITATOR SMITH: All right. Thank you Tex. The next speaker is Linda Ressegue from the Bureau of Land Management, their Washington office, and she is BLMs's manager for the solar PEIS.

MS. RESSEGUE: Welcome. Thank you all for coming tonight.

Probably most of you know this but let me just say that the Bureau of Land Management is an agency within the Department of the Interior that manages 258 million surface acres of public lands. The slide simply shows the distribution of our lands in the Western states and also about 80 million acres in Alaska.

Of those 258 million acres that we manage, about 119 million or 46 percent are in the six state study area for the solar PEIS. So that slide simply shows you the concentration where BLM lands are in the six states that we're looking at.

BLM has a multiple use mission and that mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations.

We accomplish this mandate by managing activities like outdoor recreation, livestock grazing, mineral development, energy production and by conserving natural historical and cultural resources on the public lands.

Solar energy is one of the many energy resources now being developed or considered on federal lands. To ensure the best balance of uses and resource protections for Americans' public lands, BLM undertakes

extensive land use planning through a collaborative approach with local, state and tribal governments, the public and 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 our public lands. Now BLM has land use plans on virtually all the land that it manages, but most of those land use plans do not specifically address solar energy development.

Why is BLM involved in the preparation of this Programmatic EIS?

Well, first of all, there's Executive Order 13212 issued in May of 2001 that says federal agencies are supposed to expedite energy-related actions. And also the Energy Policy Act of 2005 set a goal for BLM to approve 10,000 megawatts of renewable energy on the public lands by 2015. That was a 10-year window and it's going by quickly.

As I mentioned, BLM has to manage

the public lands for resource uses, for a variety of resource uses including energy development and, as you know or you may know, the federal energy mix managed by BLM already includes oil and gas, helium, coal, geothermal, wind, biomass and soon utility scale solar.

BLM has previously estimated that as much as two-thirds of the public lands it manages may have high potential for concentrated solar power energy production.

Now utility scale solar projects on BLM lands are authorized by BLM rights of ways issued under the Federal Land Policy and Management Act. All activities proposed for public land must be consistent with the terms and conditions and decisions in an approved land use plan so before BLM can approve a solar energy development project, BLM has to assess the direct, indirect and cumulative impacts of such development and they have to consider other resources values, sensitive

areas and public concerns, all of this completed through the NEPA process.

Now, as Steve mentioned, we've already received more than 125 applications, mostly in southern California, Nevada and Arizona. This meeting is not about specific projects but you will have an opportunity to comment on those projects as they are processed because the solar applications which have already been filed with BLM will continue to be processed on a case by case site-specific basis with a site-specific NEPA process.

These pending applications will move forward on a parallel process with the PEIS. However, BLM is deferring the acceptance of new applications until the completion of the Programmatic EIS.

What are BLM's programmatic goals? Under our current policy we process cases on a first come first served basis so if a company wants to file an application they identify the

lands, they come to BLM with their application and we process it -- each site again with its own site-specific NEPA.

But we think that looking programmatically at the issues associated with solar energy development will allow us to develop a more comprehensive, consistent and efficient program approach to adjust solar energy proposals on public lands.

We expect that this programmatic EIS will identify public lands best suited to solar energy development, public lands that are not well suited for such development, mitigation strategies and best management practices to guide future solar energy development.

The other thing that we are looking at is the need for possible additional transmission corridors to specifically facilitate solar energy development. And I know that many of you may have participated in the West-wide corridor PEIS but what we're

finding is that we may have missed opportunities specifically for solar and we want to make sure that as we go through this focus on solar energy development that we don't miss any opportunities for the associated transmission corridors that may be needed on BLM lands to facilitate that development.

We think 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 solar energy development.

We expect to amend land use plans in the six-state 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 have included proposed planning criteria in our Federal Register notice

published May 29th and tonight we are also asking for your comments on those criteria during the scoping process. Thank you.

FACILITATOR SMITH: Okay. Linda, thank you very much.

The next person who's going to speak is Doug Dahle. He's a senior program manager with the National Renewable Energy Laboratory. NREL is providing technical support to the EIS with respect to defining the resources, solar energy resources and the technologies, and I want to mention they made all the posters along this side of the room. So Doug is going to talk a little bit on resources and technologies.

MR. DAHLE: It's a pleasure to be here tonight and nice to see all those that volunteered their time to join us this evening.

Basically, I'm going to talk about three basic things. I'm going to give you sort of an overview of the actual technologies, I'm

not going to get into the details of exactly how they work but give you a perspective on what these utilities--

COURT REPORTER: Can you lift the mike?

MR. DAHLE: There you go. So anyway I'm going to focus primarily on the large utility scale applications. We're looking at stuff that's in the 10 megawatt range or higher. I'm going to share with you also sort of the GIS, Geographical Information System-based solar resources that reside at NREL. It's used by industry, and some terms of evaluating opportunities. And then a couple of slides on basically the federal policies that have a huge impact on deployment of solar technologies.

Next slide. Basically, I would categorize the solar technologies as sort of two key areas, one what's called dispatchable which means it isn't necessarily operating only when the sun's up, and the other solar

systems without storage. And the storage dispatchable is the parabolic trough. On the upper left is one of the slides that you saw from Tex, this is a parabolic trough plant, it's been operating for almost 20 years in the Mojave Desert, hugely reliable, it's basically commercially available.

The power tower, this is something you may have seen if you've ever driven through the Daggett area, a large tower with heliostats focusing on a tower where molten salt is heated and used to generate power. And then the more recent is the compact linear Fresnel reflector. It's a lower cost system and it basically heats steam.

And then what we call the dish engine. It's a Stirling engine and I'll get into more details of these, but there's also concentrating photovoltaics, something that is not like what you see on roofs of homes, and then the flat pipe PV that you're probably most familiar with.

The concentrating solar power. Let's talk about the dispatchable power. Here this is a picture, the upper one is the Kramer Junction Plant, a solar energy generating station that's been operating since the mid-80s. This is about a 75 megawatt plant.

The power tower is the lower picture and basically this is heliostats all focusing on this tower which has molten salt and it allows significant storage potential. In fact, the first operating plant was able to generate 24 hour solar energy for Southern California for about ten days before a lot of cloud cover slowed it down.

Next slide. This sort of shows the value of the storage, basically most utilities, showing sort of the red line is basically if you're looking at Southern California and their peak shows up at seven in the morning, driven a lot by residential as well as the start up of industry. The other peak tends to occur after 7 p.m., something

like that and the trick of being able to use the storage is actually to be able to dispatch that over their peaks. A solar system, the sun sets and their peak is afterwards is not of particular value. This is the most expensive power is what we see in the evening if you will and that's when all these gas turbine generators come on line. The idea here is to use solar to be able to not only peak during the middle of day when the solar resource is the highest but also to be able to deliver power when they hit their peak later in the evening.

Next slide. Another technology and this is called the Dish Engine and it basically is a dish that focuses on one single, it's point focusing on a Stirling Engine. It's a very simple device that basically heats up a fluid, basically drives a piston if you will and runs a generator.

These are basically becoming commercial now. In fact, there's a large

project with BLM where the Stirling Dish Engine will be deployed and they're typically in the 25 kilowatt size versus the power tower we saw there was on the order of 70 megawatts in the plant that you saw for parabolic troughs are rather large. In fact, the latest announcement of a project was for Arizona Public Services, a 250 megawatt plant in Arizona with thermal storage of six hours.

Next technology, these are all concentrating photovoltaic systems. There's three different types. One's called reflective and it's similar to that dish we just saw and basically it focuses the sunlight directly on solar cells. What they say here, and all three of these technologies have what's capability is called 500 suns, so the amount of power that's put out by this PV is 500 times then you'd have to have 500 times the area to get the same amount of power out of flat plate photovoltaics.

There's a also a refractive where

it's actually a lens on top of the solar cells refracts the resource and again it's the equivalent of 500 suns. And the last is a reflector and an optical rod that's used to achieve the same thing, but basically high intensity solar resource focused on these photo voltaic cells, i.e. the most expensive part of photovoltaics is in silicon cell and the idea is can you get more out of it with these concentrating systems.

Next slide. The resource that provides all of these technologies I've just talked about it is what's called direct normal insulation. It's basically the sun rays that hit, if you had a flat surface, 90 degrees to that.

And here's the resources in the BLM lands and what we're looking at it is anything 5 kilowatt hours per meter, square per day or the metric that you use. And we'll be looking in the Programmatic EIS at all the lands that have that direct normal insulation resource.

Next slide. The other the more conventional systems that you're probably familiar with is photovoltaic, flat plate photovoltaic cells. The one on the left we're proud to say is the largest photo voltaic plant in the United States. Nellis Air Force Base built a 14 megawatt plant. These are flat plate PV but they're also on single axis to they track the sun through the day. Huge amount of power.

And then the next one I'm showing you just for purposes of capacity and size and we're talking greater than 10 megawatts of photovoltaics. That takes up some land. But this is one in Portugal, it's 11 megawatts and you can see the land area. But the interesting part about it you look at the vegetation underneath, it's a little bit different in terms of its impact on the environment.

Next slide. This is what we call the global solar resource, this is the direct normal that we talked about before plus all

the diffuse light that comes from the sun scattered through the atmosphere. And it's not quite as intense but basically this is the primary resource that we use to evaluate the potential of photovoltaic systems in terms of their production.

Now we get into sort of the market factors that have a huge impact on solar deployment and basically it's the Federal Solar Investment tax credit, which basically allows a developer or private owner to take a 30 percent tax credit on the plant. For example, a 100 megawatt plant today with thermal storage is probably in the $550 million dollar range in terms of cost. It's a huge benefit to the private industry and it also is a huge benefit in terms of delivering the lowest cost of solar power. It's expected to unfortunately expire at the end of this calendar year.

And next slide, just to show you the impact, this is a modeling tool that we

have at NREL that is actually going to be used in the Programmatic EIS. It's a very complicated, hundreds of variables, looking at three or four hundred areas in terms of transmission, load centers, things like that and basically this is our projection over the next 50 years, the model is designed for 50 years, and if the investment tax credit goes away we're looking at maybe 6 to 7 megawatts of power that might be developed if that tax credit is gone.

If the tax credit remains, next slide, you're looking at in the area of 30, 40, 50 megwatts, gigawatts, excuse me, so that's gigawatts of power that could be developed with that solar tax credit.

And that's all I've got.

FACILITATOR SMITH: Doug caught me off guard because I thought he was going to go longer than that.

MR. DAHLE: No yellow card.

FACILITATOR SMITH: No yellow card

for Doug. Okay. So we've heard from DOE and we've heard from BLM regarding their specific interests and objectives in preparing this PEIS and then Doug's given us a good overview of the resources of interest and the solar energy technologies that are going to be considered in the scope of the EIS.

Now I'm going to give you a little bit of an overview of the NEPA process and the public scoping process just so that everybody understands the purpose of this particular meeting, and then we'll try to get into the comment period as quickly as possible.

So the first question, I want to be sure everybody has a good understanding of what is an environmental impact statement and, very briefly, an EIS is a document that is prepared by federal agencies in order to evaluate the possible environmental and socioeconomic impacts associated with some proposed action.

And so the EIS document will

identify for the public what the proposed action is, what the possible impacts of those actions and ways to mitigate the impacts. It will also identify any reasonable alternatives to the proposed action and then also assess the environmental socioeconomic impacts of those alternatives and it'll look at short and long term impacts as well as cumulative impacts and then address issues such as the commitment of resources that might be triggered by a specific project.

And then, importantly, an EIS is used by the agency to solicit input from the public to consider in their decision making, and then the document reflects back to the public how that input was considered and used.

Why is this EIS being prepared? The National Environment Policy Act requires agencies prepare an EIS when they're contemplating any sort of major action -- and major actions are typically defined as those that potentially could result in significant

impacts to the quality of the human environment.

And the agencies have determined that establishing broad policies and programs that will impact solar energy development or influence their decisions on solar energy development in a six state study area over a 20 year period, constitutes a major action and merits having an environmental impact statement prepared.

And, as we've mentioned before, this is a programmatic EIS and it's important to understand the difference between a programmatic EIS and a regular EIS. A regular EIS will evaluate a specific action that's well defined. You usually know where you want to conduct this activity and what the activity entails.

But we don't have specific actions. Instead, the agencies are contemplating establishing new programs, new policies, so it's a much broader assessment at a higher

level. We're not looking at individual sites or individual projects. Instead, at a general level we'll be looking at the potential impacts from solar energy technologies and potential ways to mitigate those impacts. So it's very clear that everybody understand the higher level nature of a programmatic EIS.

We're in the scoping process. What is scoping? It's the first opportunity for the public to interact with the agencies and provide input and essentially the agencies are asking for input on the scope of what they should consider in this EIS. So they'd like your input on the proposed action. They'd like your input on alternatives that should be considered. They'd also like input on what the significant issues are that should be analyzed. What are the big concerns regarding impacts or resources in the six state study area that you feel might be impacted by solar energy development.

They want input on possible

mitigation measures as well as if you're aware of data, possess data that you would like the agencies to consider in the analysis, it could be environmental data, it could be data regarding the solar energy technologies, they'd love to get that. And, importantly, they also want to know who the interested parties are. What constitutes the stakeholders for this contemplated action? And they want to understand what the individual stakeholders' individual issues and concerns are.

I've mentioned the proposed action and alternatives and they were described earlier when the folks from the agencies were talking but we'll just review this a little bit quickly.

This information comes right out of the Notice of Intent which was published in the Federal Register on May 29th and first of all NEPA requires an agency consider the action or the alternative of taking no action

at all. And that's called the no action alternative. And so of course this programmatic EIS will consider no action. And the best way to describe or understand what no action is, is to put it in the context of what are the agencies proposing. So what is the proposed action? And in this case, as was said before, both the DOE and the BLM are considering establishing new programs that will govern their decisions regarding solar energy development for the next 20 years.

And these programs will consist of environmental policies and mitigation strategies, such as best management practices and siting criteria, things that the agencies might require of solar energy development and the projects that they have to make decisions about.

And for the BLM they're also considering amending land use plans in the six state study area so that they can adopt and implement the program that they would

establish via this programmatic EIS. So that's the proposed action and so therefore no action, just backing up again, is that the agencies wouldn't establish these overarching programs and they would continue to make decisions about solar energy projects on a case by case basis the way they currently do.

Now for DOE, just also to clarify, the program policies and mitigation requirements would apply to projects that are funded by DOE, so these could entail solar energy projects on BLM lands but also projects on other federal lands, state lands, private lands, even tribal lands.

For BLM, their program would apply to the decisions they make about projects specifically on lands that are administered by the BLM.

And then the BLM preliminarily has identified a third alternative. Right now there is not a third alternative identified for DOE's consideration. The third

alternative for BLM has been loosely coined or named as a limited development alternative and under that alternative DOE would contemplate restricting solar energy development to those projects that are currently awaiting application approval and only to those projects for which BLM deems to have a complete plan of development.

So as you can see, the limited development alternative would be a small set of projects going forward and no other solar energy development, and so that would have a far smaller level of development than would be possible under either the proposed action or the no action alternatives.

So there's a couple of opportunities in the EIS for the public to get involved. Scoping is the first opportunity and it extends until -- we'll be accepting comments until July 15th close of business.

Then there'll be subsequent opportunities. You'll be able to provide

comments on the draft EIS when it's published, and that's anticipated for the spring of 2009. And then about a year later, the spring of 2010, the final EIS will be published.

We want you all to know about a web site we've developed and the url is shown here. It's a public information center and I urge all of you to go take a look at it, if you haven't already. There's a lot of good information about the NEPA process, about this EIS specifically, about solar energy technologies and the resources.

We're going to use that site to post documents related to the EIS, for example the Notice of Intent is available at this time as is BLM's existing solar energy policy. It has information about the schedule and importantly in the context of tonight's meeting there's a comment form where you can go online and enter your comments.

And we'll be providing project updates. If you're interested you should sign

up for the e-mail list, then you'll get notifications as things develop on the programmatic EIS.

Okay. Now before we jump into the actual commenting process, both BLM and DOE have agreed that it would be appropriate to answer questions at this time. We're just going to take a few minutes to see if people have questions about the material that's been presented and I want to caution you, I'm going to come around with a microphone.

We're not going to be able to speculate about what decisions the agencies might make or what their policies will be like, those will be evaluated in the context of the EIS, but rather if you have questions about something that's been presented tonight you want clarification, questions of that nature. So are you guys ready? Okay.

UNIDENTIFIED FEMALE 1: How many acres of BLM land are in California only and what percentage or what proportion of those

lands are already subject to a pending application for solar development?

MR. BORCHARD: There's 14 million acres of BLM land in all of California. In the Southern California desert area and south coast area there's just under 11 million acres. Of the 125 applications across the six states that BLM already has received, 74 of those applications are in California, 73 of them in Southern California and one up in Northeastern California.

Approximately 600,000 acres have been applied for in Southern California.

MR. HARVEY: Thank you. I'm Jim Harvey and my question is what is the BLM policy for accepting more than one application for a specific area? For example if an application is denied would there be a procedure for a second application to follow?

MR. BORCHARD: Up until the Notice of Intent was published, we were accepting multiple applications stacked on top of one

another on the same geographic spot. Now we have deferred accepting any new applications.

I mentioned we had 74 applications, those are 74 applications in California that we call "first in line." We have 22 additional applications that are second in line. In other words, we have 22 of them that have been submitted that are sitting on top of other existing first in line applications.

At this time those first applications in line we're moving forward with processing, as was mentioned before in our parallel track, as individual projects, parallel with this programmatic EIS being processed as individual applications for individual projects. Should one of those applications that's first in line be withdrawn or rejected by BLM, the second in line application that has already been filed before the Notice of Intent was filed would then be given the opportunity to start a cost recovery account with BLM and submit a plan of

development and begin processing as an individual project.

UNIDENTIFIED MALE 1: Is this working? Did I hear correctly that the programmatic EIS will consider sites in terms of sites that are not suitable versus sites that are best suited?

I heard one of the speakers say that and then I heard something that seemed to conflict with that. In other words, will there be an analysis of sites to determine what areas are good and which areas are not so good? And if that's the case then how will those sites that are good be allocated among future applicants?

MS. RESSEGUE: If as a result of the programmatic EIS we find that there really is a limited number of acres with high solar energy potential that are really well suited to being developed, we would amend the land use plans for that area to provide for competitive leasing. So companies could file

an application but it wouldn't be treated as a right of way application like we're handling them now; it would be treated as an expression of interest and we would move forward with competitive leasing of that site so that other companies could bid on it and essentially it would go to the highest bidder.

UNIDENTIFIED FEMALE 2: I have a question about the parallel process for the existing applications. There are best management practices that are developed through the programmatic EIS for solar projects, are the existing applications that are being processed going to be subject to those best management practices or just the new applications that come in after the programmatic EIS?

MS. RESSEGUE: Our goal and intention is to keep processing the applications that we have now and we anticipate that the programmatic EIS is going to take about 22 months. That's our time line

for the programmatic. We are not going to hold up on existing applications and wait for any outcome of the programmatic.

So, in other words, if they've gone through their own site specific NEPA we've developed mitigation strategies for that project, the right of way grant will be issued with those mitigation measures included.

However, if there are still of this set of applications pending by the time we get done with the PEIS and issue our record of decision, then we would be in a position to adopt the new program and it would be applicable to all of the rights of ways that had not yet been granted.

MR. GOODWARD: Back here. Hi, are there plans, or perhaps it's already been done, for a programmatic EIS for wind farms, wind energy in the desert and how would that dovetail with the solar energy projects?

MR. BORCHARD: BLM recently completed a programmatic EIS for wind energy.

However, the land use plans in California were not amended as a result of the decisions of that programmatic EIS which, you know, means the decisions in that programmatic EIS at this point do not apply to the BLM managed lands in California.

However, the best management practices that were established by that wind programmatic EIS were incorporated into BLM policy and that policy does apply to the agency nationwide.

I'm not sure how to explain that distinction but I guess the primary decision in that programmatic wind EIS that California is attempting to unravel and apply to the California desert, is the decision in the programmatic EIS that said wind energy will not be developed on areas of critical environmental concern, a designation that BLM applies to certain lands that possess resources of unique or rare or scarce values. And there's many ACECs or Areas or Critical

Environmental Concern in southern California that we're attempting to interpret the policy and figure out how we're going to apply it here in the California desert.

UNIDENTIFIED FEMALE 3: This applies to studying solar radiation, this question and specifically maybe to NREL. What confidence do you have in your all's ability to identify the best sites? And also I noticed that the IM does not really give you time to analyze your own data, your own MET Towers. You go in right into a right of way.

So I would imagine that you would study radiation during the time your application is in process.

MR. DAHLE: Good question. One of the things -- the source of the solar radiation is based on satellite data and some very sophisticated modeling that's been done where we've put up pyranometers to actually monitor the resource. It is unlike wind where you actually put up a MET Tower for a year to

confirm the resource, the evidence and demonstration of actually putting up pyranometers, and there a lot of stations all over particularly in the Southwest, the confluence is within a few percent in terms of what we predict.

And the other thing in terms of siting places high potential, one of the things that is a factor in these high potential lands in a case of lot of these technologies, not so much the photovoltaics or the pole-mounted, is when you're talking about these large parabolic troughs you're looking at one to 3 percent slope so you take the topography as well as the solar resource, a combination of those.

UNIDENTIFIED FEMALE 4: Thank you. This programmatic EIS is going to be looking at the need for 10,000 megawatts of solar energy produced. Just the 73 projects in southern California right now with the 600,000 acres, that's 123,000 megawatts. Is

there a consideration within the PEIS as to whether or not there is actually a need for the solar energy that would be built, the plant, because if you can't use it you have to throw it away so you just dump it. So is that consideration part of the analysis?

MS. RESSEGUE: Thank you. One point about that 10,000 megawatts is it's 10,000 megawatts of non-hydro power renewable energy so technically none of it would have to be solar.

We are moving ahead with a lot of wind energy and geothermal, to a lesser extent biomass, I don't know what the numbers are there. But we are pursuing, we are authorizing other renewable energy resource uses.

But BLM is interested in facilitating solar energy development on public lands as well; it's just we're trying to figure out how to balance that use, which is land intensive, with our other management requirements. But it is not going to be--

Karen talked about our limited alternative and we haven't really put the side boards on what that might be yet, a limited solar energy alternative. But I don't think that BLM would consider no solar energy.

FACILITATOR SMITH: In the interests of time we're going to go on to another question.

MR. WILKINS: Hold on a second. The way that these solar projects wind up being built, a developer has to have somebody who's buying the power, who wants the power, and generally what happens is a utility will say they need so many megawatts of renewable energy or they need so many megawatts, so a developer will come in and bid on it.

So none of these solar projects will be built unless somebody has said they are willing to buy the power at a certain amount and that they want that amount of power.

MR. TRAFECANTY: Hello. My

question really relates to the whole issue of desert solar versus distributed generation near the need, I call it DGNN. Why don't we build our solar energy where it's needed? It's not needed out in the Mojave and places like that, it's needed in the city.

So what I'm saying is when you build a huge plant you're lining the utility company's pockets, when you're building a transmission line you're lining the utility's pockets. Why don't you just give an incentive like Berkeley and San Francisco and Sacramento are doing, and other countries are leading this whole area as far as solar dependence, all the manufacturing's going to other countries.

FACILITATOR SMITH: I think that's a comment and I hope when we have the comment period you'll come up and make it. We're going to take just one more question and then we'll get into the comment period.

UNIDENTIFIED FEMALE 5: Thank you.

My question has to do with a portion of the Federal Register notice which highlighted that BLM was going to, and I'm going to quote, "consider an analyzed relevant climate change impacts in land use plans and associated NEPA documents, including the anticipated climate change benefits of solar energy."

I was wondering if there was someone that could elaborate on the basis for that analysis and what it will cover? What's anticipated?

FACILITATOR SMITH: Well, I guess I'll try to answer that. I think that what is meant by that is that in addition to assessing environmental impacts, adverse environmental impacts of the solar energy development, we will also attempt to assess the potential impacts of solar energy development in terms of the reduction of greenhouse gas emissions and, ergo, draw some conclusions or speculations about the climate change impacts.

Okay. I think we're going to move

on into the comment phase and I appreciate your taking the questions and everybody's cooperation.

So there are three different ways that you can provide scoping comments. The first is to attend a scoping meeting like the one this evening and make comments. Second is via the online comment form on the web site and the third one is via mail. And we will be accepting scoping comments to repeat through July 15th close of business.

If you have written comments to submit, as I mentioned there is a comment form on the web site and if you want to attach files it can take up to 10 megabyte file size attachment. And the specific address is right there, but you can navigate to it from the main page.

You can also fill out one of these paper comments forms that were handed out at the meeting tonight. Just fill out the front. There's not a lot of room for your comments

but if it fits on there and you want to hand it in to one of us this evening, anybody wearing a badge will take those. Or you can take it home and fill it in and then fold it over, tape it and mail it to the address on the back. That's the same address that's showing here. You don't have to limit yourself to this small space, you can send us anything in writing to that address, including supplemental information, reports, other things you want us to have.

And I should mention too when you registered I mentioned that the web site has an e-mail list; when you signed in one of these registration forms if you gave us your e-mail address you'll automatically be enrolled in the e-mail list, unless you don't want to be and let us know that. Okay. So that's how to submit written comments.

And now how to submit your oral comments this evening, these are the ground rules. We have asked people to sign up,

register that they want to speak and we're going to call them up to make their remarks in the order in which they signed up. And after we get through all the people who have signed up, we'll then open the floor if there's somebody who has been motivated while they've been here this evening, decided they do want to speak, they'll have an opportunity.

When you're making your comment we'd like you to state your name and, if you have one, your affiliation. And it's really important that you speak into the microphone so that our reporter can capture everything you're saying.

We're giving you a three-minute limit. Because this is such a full house we're going to adhere to that three-minute limit and we want you to limit your comments to the scope of the programmatic EIS and, as we mentioned, we're no looking at sites, specific sites, specific projects, so we're not seeking your input on specific projects or

specific locations. What we really want is your input on the programs that these two agencies are contemplating developing.

And if you have any written copies of your remarks you want to hand those in, if you have any supplemental material hand those in to me or one of the other staff working this evening that would be great.

The court reporter will produce transcripts of the meeting, each scoping meeting, and then those will be posted on the web site at some future date. Okay. I think that's about it and just a few other little rules. If you're speaking and you see a yellow card that means you have 30 seconds left. And then if you see the red card that means your three minutes is up.

If you have more than three minutes' worth of comments I'm going to ask you to stop at three minutes when I show the red card. When we get through everybody else who's registered or become motivated to speak

you can come back up, but it is a three minute limit. All right.

The first speaker that we have registered to speak is Wayne Hoffman. And just to facilitate transition between the three minutes, after that we have Dai Owen and Jim Harvey. And if you can just come to the podium that would be great.

The transcripts will be posted on the web site along with these slides, along with copies of the posters and other materials. Go ahead.

MR. HOFFMAN: Okay. Good evening. My name is Wayne Hoffman. I'm the environmental affairs director for Optisolar. We're a major PV manufacturer developer owner/operator of utility scale solar plants in California. We also manufacture at two sites, including a major site that we're just putting together in Sacramento.

I have only four or five comments tonight. I'll be brief. I don't have written

comments with me but I will send these in by the web site and e-mail.

My first comment is I do encourage the folks doing the EIS, the BLM, to consider broadening your transmission assessment to include other federal agencies, particularly in situations where other federal agencies, such as the National Park Service, might already be impacted by an existing transmission line and where proposed transmission corridors may skirt a national park or wilderness area or military base. We think that these situations in particular are important.

I encourage you to set definitive time lines for project level EIS applications in the PEIS and from the submittal of the pod, the application, through the rod process so that we have an understanding of how long this process is going to take.

I propose that you consider a more flexible approach to the use of certain

environmentally sensitive areas in the PEIS, in particular the DWMAs, the Desert Wildlife Management Areas. We have fairly definitive scientific evidence that some of these areas don't have solid science behind them.

We think that there are specific measures that could be taken to enable a proposed applicant to actually survey and evaluate the science with regard to the existing density and the sensitivity of certain DWMA areas, certainly in some cases along the borders. We know for a fact that there are certain areas where the Mojave ground squirrel conservation areas have been designated as basically off limits for solar and we know for a fact that some of these areas have very weak science behind them.

I would finally like to encourage you to recognize key differences between how PV projects, photovoltaic and CSP thermal project approvals are approved, especially as it relates to the CEC AFC process. That's a

totally different process where the submittal of the AFC is basically equivalent to the submittal of an EIS. In the case of a solar project, a PV project where we do not have CEC approval -- and I'll wrap this up in just a second -- we encourage you to consider a different approach. Thank you.

FACILITATOR SMITH: Thank you. I appreciate that you mentioned if you make comments orally at the meeting you can certainly comment online or send in written comments later.

MR. OWEN: Hi, my name is Dai Owen and I am here to represent enXco. We are a renewable energy company that develops, builds and manages renewable energy projects. In the more than 20 years since enXco was established in 1987, our focus on renewable energy has made us an industry leader in wind project development and a premier provider of operation and maintenance services throughout North America.

EnXco understands the inherent impacts associated with development of solar energy projects on public lands and seeks to design, build and own the most effective solar projects in the best locations.

We understand the desire of BLM to defer new solar applications at this time in order to avoid inconsistencies between the PEIS and future projects. However, we're greatly disturbed at how the closure was executed without prior knowledge by interested parties.

The PEIS will be most effective if it flexibly identifies where solar projects and transmission for solar can and should be located, facilitates future site-specific environmental reviews to make them more efficient and predictable, articulates best management practices that can be followed by our solar developers, allows near term investment in solar energy projects, coordinates any designation of additional

transmission corridors with RETI and a similar WGA renewable energy zone project, refers in detail to local and regional land use plans -- a good example of this was the Forest Service road-less rule PEIS -- amends land use plans to facilitate environmentally responsible solar development and ease the backlog of applications.

EnXco further believes that the BLM should continue to process pending right of way applications for solar energy using transparent criteria.

The PEIS should consider solar energy and transmission development on federal lands other than those managed by the BLM. The BLM should explain how future site-specific environmental reviews will be facilitated by the work of the PEIS.

The PEIS and BLM's land use plans need to be flexible documents that can adapt to changes like climate change, technology improvements and shifting priorities.

I'd like to close by saying that we believe the PEIS is a unique opportunity to evaluate the benefits and environmental issues surrounding solar development and to bring people together to promote such development in the most environmentally sustainable manner possible.

We look forward to continuing to work with the BLM and other interested parties in the PEIS. Thank you.

FACILITATOR SMITH: After Jim Harvey we will have Holly Gordon and Janet Gilmore.

MR. HARVEY: Thank you. I'm Jim Harvey with the Alliance for Responsible Energy Policy and we're in Joshua Tree, California.

I'd like to start by expressing on behalf of the Alliance for Responsible Energy Policy our most sincere gratitude to all the participating agencies for initiating this much needed solar development programmatic

EIS.

AREP believes the utility scale solar exploitation of our public lands in the six western states identified in this PEIS is the most critical issue facing the future sustainability of these very precious land resources. A comprehensive and transparent study process is imperative and most appreciated.

One of the most pressing concerns the alliance has regarding utility scale solar projects, as with all other renewable energy and transmission projects, is what appears to be a lack of regard for the sanctity of wilderness areas and critical environmental concern areas by some of the project applicants.

A representative for Solar Millennium, for example, has expressed frustration over the premise that these land designations might preclude them and others from financially feasible utility scale

development. The Los Angeles Department of Water and Power has applied for a right of way to build a 500 kilovolt transmission line right through the middle of an ACEC on the western edge of Joshua Tree National Park of all places.

Incidentally, LADWP has deceptively named their project Green Path North. There also seems to be some confusion among some of the members of the environmental working group participating in the California Renewable Energy Transmission Initiative, the RETI process, regarding the BLM's development eligibility recommendation for these land designations.

AREP strongly urges that these designated and proposed wilderness areas and ACECs receive uncompromised complete protection from development and first and foremost be excluded from any eligibility for solar, wind and transmission line development. We must draw a line in the sands of these

critical land designations and BLM should make these recommendations on behalf of we, the people, the true owners of these lands.

I realize the solar PEIS has excluded these designations from the study but I feel you should be aware of the debate that's occurring outside of the study.

I would also like to enlighten the participating partners of this PEIS on what we perceive to be very solemn and somber feelings among an extremely large segment of the members of the national environmental organizations regarding the sacrifice of pristine publicly owned lands for solar exploitation.

AREP learned this first hand when addressing the Sierra Club California Nevada Desert Committee just last month. Our presentation was very critical of the Sierra Club and NRDC staff's apparently willingness to accept that scraping and permanently destroying potentially over a million acres of

undeveloped pristine public lands may be necessary. AREP believes no environment should be compromised or sacrificed under a questionable banner proclaiming to save it.

Our message was very well received by the club members and activists who overwhelmingly agreed. I'll stop here and if I could pick up later, thank you.

FACILITATOR SMITH: Okay. Is Holly Gordon here?

MS. GORDON: Good evening. My name is Holly Gordon, I'm vice president of legislative and regulatory affairs for AUSRA. AUSRA is a large-scale solar thermal energy company based in Palo Alto, California. We're a privately funded start up company that has been in the United States for about 18 months.

We have a contract with Pacific Gas and Electric Company to build a 180 megawatt project in central California. Although this project will be located on private land we are currently looking to build projects on public

land in California and throughout the Southwest.

Thank you for holding the meeting and for giving us an opportunity to provide comments.

While we applaud BLM and DOE for their leadership in helping to promote the development of solar energy on public lands, there are several aspects of the Notice of Intent that require revision if the programmatic EIS is going to be a useful document.

First, we feel that it is inappropriate and unnecessary to freeze all right of way applications during the preparation of the programmatic EIS. A large scale solar thermal industry is just getting started in the United States. Currently there are only two trough projects on line, one in Southern California and one in Nevada. Freezing new applications will significantly stunt the growth of the industry, potentially

killing the industry before it effectively gets off the ground.

We recognize that BLM is short on resources. However, a full freeze on right of way applications is simply not the answer.

In response to the question that was asked earlier regarding the 73 applications that had been filed in Southern California, keep in mind that getting a right of way and getting approval on BLM land is just one small part of building these projects. There's hundreds of hoops that we have to go through to get these projects off the ground and I assure you that those 73 applications will only result in a few projects.

Second, BLM and DOE should allow solar energy development with appropriate restrictions on environmentally sensitive lands. There's no reason to categorically exclude ACECs or Areas of Critical Environmental Concern in other special

management areas that may be vital to solar energy development.

As BLM has repeatedly recognized, a certain level of development can occur in managed areas with appropriate best management practices and mitigation measures.

Third, the programmatic EIS should consider solar energy and transmission development on federal lands other than those managed by BLM. Many lands administered by other agencies, such as the Department of Defense and the Forest Service, may be suitable for solar energy development. A holistic approach is especially important for transmission siting.

The programmatic EIS should review other lands, or least set forth processes for doing so with other agencies.

Finally, the programmatic EIS needs to provide clear criteria for efficiently processing future project-specific environmental reviews. In particular an

explanation of how future site-specific environmental reviews will be truncated due to the programmatic EIS as necessary.

We sincerely appreciate BLM and DOE's efforts and look forward to working with the agencies as they move forward. Thank you.

FACILITATOR SMITH: After Janet Gilmore if she's here, is that Janet Gilmore? Okay. Next speaker signed up is John McFarlane. After John we'll have Lee Wallach and then Rachel Gold.

MR. MCFARLANE: Good evening. John McFarlane, AREP, Joshua Tree, California. The Alliance for Responsible Energy Policy came into existence in January 2008 to study the impact of the 2005 Energy Policy Act. It quickly became apparent to us that we must look beyond single projects that add centralized energy generation and more long distance transmission lines. Therefore, we are very grateful the Department of Energy and BLM have acknowledged a very real need for a

cumulative review of the projects planned and applied for within California and other western states. We thank you for opening this transparent process.

In the small town of Yucca Valley we have seen a great deal of dissent over development projects, much more over the last two years. Citizens are becoming more and more aware that development does not always mean growth. Sometimes development tears down much more than it builds up.

When I hear citizens arguing against growth and development from an emotional base I think back on some scientific theories that I've read. I find myself wanting them to think back to 1960 and "Chaos Theory" by Edward Loren. While trying to describe systems that are apparently disordered, the chaos theory actually ended up finding the underlying order in apparently random data.

I'd like to quote a scientist who

knows much more about the theory than I. "The flapping of a single butterfly's wing today produces a tiny change in the state of the atmosphere. Over a period of time, what the atmosphere actually does diverges from what it would have done. So in a month's time a tornado that would have devastated the Indonesian coast doesn't happen, or maybe one that wasn't going to happen does." Ian Stewart, "The Mathematics of Chaos."

I believe the theories within quantum physics and string theory which have deepened our understanding of the inter-connectedness of the universe, point out the very serious depth with which we must study the actions we take today in regard to the effects they may cause tomorrow.

If we are not really sure of the long term effects, we should not take the actions.

Most inventions and medicines on earth have been developed after observation

and imitation of nature and natural processes. If we cleared raid and build our solar fields across the Mojave Desert in the rush that we appear to be in, what will the impact be on an extremely vulnerable ecosystem? Some reports indicate that in excess of a million acres will be built out in the next five years. There has never been such a rapid build up of any ecosystem that size.

Clearly, there is a legitimate reason that deserts are included as a part of the overall balanced ecosystem of the world. I do not think that we have taken the proper time and effort to study the issues. I would hate to see so much destruction of a vital ecosystem which might be the laboratory where we develop much-needed heat and drought resistance systems and processes.

Another thing to think about when you cleared raid desert growth is, in California because of overgrowth and pollution, whenever we get rid of native

plants we get non-native grasses come in which cause greater wildfires.

FACILITATOR SMITH: I've lost track of where I am. Lee? Okay.

MR. WALLACH: Hi, thank you. My name is Lee Wallach. I represent a company called Solel, a solar thermal company here. I also wear a couple of other hats that are critical. I am on the board of the League of Conservation Voters, I am with the Inter Faith Environmental Council, and have been an environmentalist and a very active environmentalist for the better part of my life.

I really appreciate and applaud BLM and DOE for taking this step. It's a critical step, it's an important step for all of us here. This is also a unique opportunity for us to be able to move forward in a way that would have been difficult had you not taken this opportunity to go forward.

This is going to allow us to really

outline the future of energy for our country, where transmission lines obviously land will be. This will also allow us in this country to substantially solidify where this country's going and allow us to substantially reach for investment and provide for really some certainalities in the process which is important. If we are going to have investments in renewable energy, we need to have some reliability in the process and this, I think, will allow for that and that's critical.

We see that in some countries, we haven't seen that yet here and we do need that desperately.

The reviews being efficient and predictable will also allow us to move forward and create more renewable energy and investment. So I applaud the process moving forward.

I would also say, and I've heard this earlier, I am generally concerned that we

are worried about an onslaught of renewable energy projects. I've heard number, seventy this, seventy that. I think that we have to be very, very careful about not reaching far enough. We have an opportunity here to replace coal-burning, even clean coal-burning plants. We have an opportunity here to move towards a renewable future and if we don't take that opportunity we're going to be in real trouble.

Some of the comments you've heard from some of my colleagues are critical. I think it is unnecessary to freeze existing right of way applications or new right of way applications I should say. I don't think we need to do that. A better policy choice is to pick certain areas that are critical and maybe freeze them there.

I think you should have appropriate restrictions on environmentally sensitive lands. There's other things that will be outlined through this process, other areas of

concern. I hope that you make appropriate changes looking at these written comments and our comments throughout this week as you're going through the process, not waiting for the process to end but maybe change them on the front end. Thank you.

FACILITATOR SMITH: Next speaker is Rachel Gold and then I'm going to have to make my apologies in advance, I'm going to mispronounce the names I'm sure. After that we'll have D'Anne Albers and then Donna and then Larry Charpied? That got a laugh.

MS. GOLD: Good evening. My name is Rachel Gold and I'm here representing Solar Millennium. We're a solar thermal developer that is based in Berkeley, California. We've been in California since 2005 and we've been developing solar thermal projects throughout the Southwestern United States.

Thank you for the opportunity to comment this evening and I want to thank BLM for putting forward this PEIS. I think it's

going to be a helpful process for us to evaluate the benefits and environmental issues of solar development and bring people together to promote such development in an environmentally sustainable manner.

We believe that the PEIS can and will be a useful document only if it flexibly identifies where solar projects and transmission lines can and should be located, allows for near term investment in solar energy projects, makes future site-specific environmental reviews more efficient and predictable, coordinates with state programs and initiatives and sets forth clear processes for dealing with new developments and changes.

I'd also like to reiterate the comments of my colleagues that we believe it's inappropriate and unnecessary to freeze all new right of way applications and that there are other policy choices that might reflect the needs of BLM and DOE who are short on resources to avoid inconsistencies with their

PEIS in future management prescriptions and allow for some new applications in certain restricted areas.

We also -- I'm pleased to hear tonight that pending right of way applications will continue to be processed and I'd like to encourage BLM to process those on a reasonable, consistent and using a transparent process.

I'd also like to reiterate that we think that it is appropriate for some solar energy development with restrictions to occur on environmentally sensitive lands. And on that note I understand that the NOI excluded the entire California desert conservation area and that this was an error. I'd like to make sure that that is corrected.

We don't believe there's a reason to categorically exclude other special management areas that might be vital to solar energy development as BLM has repeatedly recognized a certain level of development can

occur in managed areas with appropriate best management practices and mitigation measures.

And I'd like to conclude by saying that we just want to be a part of creating a PEIS that is comprehensive, transparent and flexible and that the PEIS should expedite site-specific NEPA reviews in the end and recognize that solar energy development and environmental protection can work together and provide clear standards and processes for stakeholders and cooperating agencies. Thank you.

MS. ALBERS: Good evening. My name is D'Anne Albers and I'm a resident of 29 Palms, California and a desert associate for Defenders of Wildlife.

Defenders of Wildlife has over half a million members, of which 100,000 members are in California. Many of those members are here tonight and we will be attending other meetings. We will be submitting extensive written comments as well.

First, I would like to thank the Bureau of Land Management for their open process in the renewable energy rush in the Mojave Desert. Also for realizing that there is a need for an analysis of the cumulative impacts of these power plants.

The Bureau of Land Management has the enormous task of managing our public lands. Much of that land is in our desert regions. Those of us who live or recreate in the desert are aware of the fragile balance of life in the desert.

It is home to numerous plants and animals that are found nowhere else. These plants and animals have adapted over thousands of years to this harsh environment. They are facing enormous pressure now from encroaching development, military expansion, renewable energy plants and climate change.

Defenders of Wildlife strongly supports renewable energy. However, we urge that in the quest for renewable power the

design of these projects be in the most sustainable manner possible.

There's much left to be done with the conservation of power, providing tax incentives for personal business use, the utilization of commercial rooftop photovoltaic installations, siting energy plants close to where it will be used and the use of the most current technologies available.

Defenders thanks BLM for identifying areas for exclusion as a starting position. We also thank BLM for halting this rush to turn the Mojave Desert into a sea of mirrors without stakeholder input.

As a participant in the Renewable Energy Transmission Initiative, Defenders has seen the rush to get these areas designated as acceptable for renewable energy plants. This process is occurring without the participation of local governments, county governments, U.S. Fish and Wildlife Service and many other concerned groups.

Defenders understands the California goals of the Energy Act of 20 percent renewable by 2010, but what would society say if we were to look back on the placement of our renewable energy resources, like solar in the Mojave, and see that their site selection and transmission lines had destroyed the very plants, animals, habitats and quality of life that we are trying to protect. Thank you.

FACILITATOR SMITH: Diane and Larry? Okay. I guess they're not here and I'm sure I mispronounced their names. Charpied? And they're not here? Okay.

The next speaker signed up is Dennis or Denise Trafecanty. Anybody here? I apologize for-- Thank you.

MR. TRAFECANTY: Hi, I'm Dennis Trafecanty. I came up here from San Diego, found out that there's a meeting in El Centro but that's okay I'm still here.

You said it right, Linda, the

public own these lands and you can be assured that we will be here to track the studies that are being conducted, the public, I am the public, I am not affiliated. We do have a foundation down in San Diego. You know, when you get all these developers and utilities together I could sense a lot of aggressiveness in this room to get things going. Let's line the pockets like I just said.

Down in San Diego our utility's trying to run right through the gut of the largest state park in California with a transmission line. We don't think it'll happen but they're trying to do it. So transmission is like an antiquated technology in my mind, and I believe in a lot of others. The two things that really helped us during the disastrous October 2007 wildfires were UCSD's, University of California San Diego's combined heat and power plant and some Mexican power.

The nuclear power plant was down,

the transmission lines had to be shut down. The other transmission line we have in south county was down. You know we really need power wherever we're using it and it's not out in the Mojave Desert.

I really thank you for having these meetings. You're going to be seeing us at all these meetings, several of us. I hope to bring the desert experts because we're going to insist that you really look at what's going on in the desert, including the wildlife and the ecosystems and the flora and the fauna. We've been through it for two years.

By the way, I hope when you consider solar systems that you look to see if they can even work, like the Stirling thing to me is a big joke. There's six of them, I started working on this project two and a half years ago. There's six of them in Sandia Labs in New Mexico. The same six are still there and we're talking here in this room about commercial production of six units. Southern

Cal. Edison's backed away from it. SDG&E is using it to try to get a power line through the state park.

What about our water resources? What about all that you're going to use to clean these mirrors and stuff like that? What about all the chemicals that you're going to use to put that steel in the ground? That's going to affect the wells. It might dry the wells up.

You're going to be using natural gas during down days. I've heard that said.

What about greenhouse gas emissions? In some cases with the steel you're putting in the ground and the plants that you're going to be generating power, you're going to have a negative greenhouse gas emission effect.

Consider Bill Powers' San Diego smart energy 20/50 plan in San Diego. That's how you get distributed generation near the need. We don't need transmission lines any

more.

FACILITATOR SMITH: Thank you. The next two speakers are Ann Garry and then Sara Viola.

MS. GARRY: Good evening. My name is Ann Garry and I'm with the Alliance for Responsible Energy Policy, Joshua Tree, California.

It's hard for some of us to comprehend the fragile ecosystem of the desert. General George Patton used many parts of the Mojave Desert as training grounds and military camps. After 50 years many of the old traces of tank tracks are gradually vanishing but in some areas, such as flats that rarely flood, the scars are clearly visible.

As a former employee of Joshua Tree National Park I am a witness to this impact. While traversing one of our tortoise plots in the Pinto Basin, we came across those same old tracks and were amazed to find that they were

50 years old and still very visible.

The Alliance for a Responsible Energy Policy, AREP, would like to take this opportunity to thank the BLM for the transparent process the agency has established.

Additionally, we are most appreciative that BLM listened when we and others expressed the need for BLM to conduct a comprehensive and cumulative analysis of the socioeconomic and environmental impacts of all the applicants for concentrated solar and wind farm projects.

AREP also appreciates BLM's wise decision to defer new applications until your comprehensive assessment is completed.

AREP is seriously concerned that BLM's evaluation of alternative management strategies will fail to give just and due consideration to the outstanding potential that distributed energy and demand side management can have upon the need for remote

concentrated solar projects that necessitates new and dangerous transmission lines.

AREP remains deeply concerned about BLM's stated agenda to expedite environmental analysis for site-specific projects in the future and too quickly deploy solar energy projects.

The concerned citizens of AREP and many others you will hear from are not impeding responsible progress as some have suggested. Instead, we seek to educate and implore the BLM and the DOE to consider what current policy seeks to expedite as 1970s big solar and 19th century transmission technology. Simply stated, these archaic technologies do not constitute progress or a responsible energy policy. Thank you.

MS. VIOLA: Sara Viola of the Alliance for Responsible Energy Policy, Joshua Tree, California. This is Part B.

AREP is cognizant that BLM's charge does not include developing national energy

policy. However, BLM has partnered with DOE and is therefore in approximate position to implement policy change and development.

Consequently, AREP encourages BLM to modify its cumulative study to include a comparative analysis of the proposed 125 concentrated solar plants with the equivalent output of photovoltaic energy generated at point of use.

BLM must consider all of the cost, damage and risk associated with the 125 proposed concentrated solar plants and the necessary transmission lines such as (1) destruction of the desert ecosystem; (2) depletion of water resources; (3) the viability of air cooling exhaust steam; (4) fossil fuel burning at hybrid solar plants; (5) soil and reclamation issues; (6) greenhouse gas emissions from production and transporting of materials; (7) overall effect on the national and planetary ecosystems; (8) cost and efficiency of transmission lines; (9)

increased fire risk and (10) light heat funnel effect. These concerns will be addressed in more detail in our written submission.

Such a comparative analysis is very likely to prove that substituting urban and suburban photovoltaic energy generated at point of use for remote concentrated solar plants can and will meet Arizona, California, Colorado, Nevada, New Mexico and Utah's energy needs while fully mitigating all environmental impacts associated with the remote solar energy production.

AREP encourages BLM to keep in mind that Germany and Spain are currently installing 2,000 megawatts of photovoltaic energy per year.

AREP is confident that when BLM completes not only a cumulative but comparative analysis, the agency will conclude that current energy policy is taking our nation in the wrong direction. Current energy policy favors an archaic system of remote

generation and long distance transmission. This approach is costly, dangerous and inefficient. Generating energy at the point of use, or very near point of use, is less expensive, less dangerous and kinder to the surrounding environments than overall ecosystems currently in our nation's growth, and the photovoltaic industry suffers from a lack of venture capital.

Entrepreneurs need assurances that photovoltaic demand is strong enough to justify their investment. When energy policy favors locally generated energy systems, photovoltaic demand will increase rapidly, thus investment capital will follow. The competitive spirit of our marketplace will figure out ways to rapidly provide less expensive and more efficient photovoltaic systems to consumers. New local energy generating products will move from research and development laboratories to our homes and buildings at the rapid pace this nation is

capable of achieving. Thank you. Maybe I'll continue later.

FACILITATOR SMITH: Thank you. Okay. The next speaker signed up is Josef Eichhammer and then that will be followed by Roger Johnson. Is Josef here?

MR. EICHHAMMER: Yes, I'm here.

FACILITATOR SMITH: Okay. Great.

MR. EICHHAMMER: Hello, I am Josef Eichhammer from Solar Millennium and I am heading up our subsidiary here in the U.S. As you can probably hear I am German and our parent company is from Germany.

We are in the solar business for ten years but our people have been involved in building solar power projects already 20 years ago and it has been mentioned before that there is a Kramer Junction power plant and the Harper Lake power plant in the Mojave Desert and our engineers have been involved in these projects already 20 years ago.

Currently but after these 20 years

there was less development in the U.S. and we have concentrated on other countries, like in Spain, and it is remarkable I think to see that especially European companies, us but also others and especially Spanish companies, have developed an industry for solar thermal power plants.

There's a big industry in heat collection and demands in the steel structures, in steam turbines, for example, Siemens has a backlog of 30 turbines currently and I think, and as you have rightly said at the beginning, you have the best solar resource of the world and why cannot this industry be kept in this country and built up in this country.

You have made a couple of comments regarding the energy policy. I mean you have a renewable portfolio standard in many states like in California, in Nevada, in Arizona for example but also in others, and I think the conclusion to enact this renewable portfolio

standard was to make a change. There is a climate change and I think we have to address it to a certain extent and this technology can address it.

And there have been made comments with respect to the footprint of such power plant. Our power plants, solar thermal, parabolic trough power plants have a footprint which are smaller than for example wind power plants or, for example, hydro-power plants. So I think we can provide sustainable and also economical power for this country.

I would like to conclude also with a question. I mean everybody speaks about climate change and how we shall address that. I think we cannot close our eyes and therefore I think this is a good solution -- parabolic trough power plants which can also have a very beneficial effect on the economy but also on the climate.

One thing I would like to address in addition and Rachel from our company has

taken already the very good points so would like to say one thing at the end. We see a lot of speculation, we see lots of speculators out there who are making applications and we both would like to see that the process differentiates for that and that there is a differentiation between the real projects and the speculators. Thank you very much.

FACILITATOR SMITH: Thank you. We have Roger Johnson next. Then Laura Crane.

MR. JOHNSON: Good evening, I'm Roger Johnson with the California Energy Commission and the energy commission is going to be working as a cooperating agency with the BLM and DOE on this programmatic EIS so I just wanted to identify myself tonight and to make that known and just to advise the group that essentially we will be working to coordinate all the efforts that are going on in California today.

The RETI program was mentioned this evening, that's the Renewable Electric

Transmission Initiative, looking to identify renewable resource areas in California and those transmission projects that would be needed to access those resources. So that's going to be important I think input into the programmatic EIS.

And we are currently getting letters signed to become a cooperating agency. We worked with the BLM on the programmatic EIS for the corridors and we thought that was a good effort where we were able to bring together a working group in California of state, federal and local agencies to advise the BLM on that effort.

And right now we have an MOU with BLM for those large solar projects that are thermal projects in California, 50 megawatts and larger. We have an MOU that we are using to jointly process those projects through the federal NEPA and state CEQA process. So we'll have consistency on those permits and all the projects will be evaluated similarly.

So the energy commission will be attending the meeting tomorrow night and the one in Sacramento and we'll provide our oral comments in Sacramento. Thank you.

FACILITATOR SMITH: Okay. Next is Laura Crane. Then after Laura, Nicole Panter. And John Simpson.

MS. CRANE: Good evening. My name is Laura Crane and I am the Mojave Desert project director for the Nature Conservancy. I appreciate the opportunity to offer some brief scoping comments on the solar Programmatic Environmental Impact Statement being prepared by Argonne National Laboratory on behalf of the Departments of Energy and Interior.

The Nature Conservancy will also be submitting more detailed written comments for the record.

The Nature Conservancy is an international conservation organization dedicated to preserving the plants, animals

and natural communities that represent the diversity of life on earth by protecting the lands and waters they need to survive.

We've long been committed to working with public and private partners to accomplish our mission using science-based methods and a collaborative non-confrontational approach.

We own property and conduct desert biodiversity projects in all of the areas affected by the solar generation and transmission facilities which are the subject of this impact assessment.

Our interest in this assessment flows from a concern that lands, waters and the biodiversity we value and support may be adversely affected by the proposed large increase in the public lands devoted to solar energy projects and associated transmission facilities, especially if these projects are not carefully sited and designed to avoid or minimize negative impacts.

The Nature Conservancy does support increasing the share of electricity generated by solar and wind sources. We recognize that the deserts of the Southwest, and especially the Mojave Desert, are uniquely suited to the efficient generation of electricity from the sun. And we believe that the development of renewable energy facilities and transmission can be done in a manner that is compatible with protection of biodiversity.

So the majority of our comments will be submitted in writing, but I wanted to just highlight two comments in the scoping of this programmatic EIS. And the first one is that there are a whole host of land uses in the desert that are impacting wildlife and biodiversity, including but not limited to expansion of military bases, off road vehicle recreation, commercial and residential development. So evaluating utility scale solar energy projects in context with these other land uses is necessary to provide an

accurate assessment of their cumulative impacts.

The second thing that I just wanted to highlight was that we would like the entire mitigation hierarchy, as defined by the Council of Environmental Quality, to be utilized which may include one or more of the following: avoiding, minimizing, rectifying, including repairing or restoring, and compensating for the impact by replacing or providing substitute resources or environments.

We believe important lands and associated water sources should be avoided. Where adverse effects are inevitable, those effects should be minimized on site first with off site mitigation considered as a last resort.

Finally, I just want to applaud BLM for the job they've been doing. Thank you very much. I got the red card and I didn't even see the yellow one.

FACILITATOR SMITH: I'm not outrageous I don't think. Nicole Panter? Okay. So we'll go on to John Simpson.

MR. SIMPSON: Hi, I'm John Simpson and I'm representing the Desert Communities Association of Realtors Energy Policy Committee.

We'd like to commend the BLM for undertaking this PEIS because we feel it's very important that you consider the cumulative impacts not only of all of these utility scale solar projects, but all of the other uses as just previously mentioned impacting the desert.

We would like you to, along with evaluating the environmental impacts, consider the extreme negative impacts that these projects put on property rights and property values.

Utility scale solar projects and other utility scale projects in the desert remove recreational spaces, they remove open

spaces and they encourage the use of eminent domain for transmission lines. All of these have extreme negative impacts on property values throughout California because recreation spaces and open spaces and View Sheds are an important part of property value and very important to the California lifestyle.

At the same time that resources would be going toward creating utility scale projects, public land resources, financial resources, tax incentives, etc., none of those resources would be available to localized generation incentives for rooftop solar backyard wind projects.

We would like you to evaluate the comparative analysis that shows why utility scale projects should be getting the lion's share of resources at the expense of localized generation projects which would favor property values. We will be submitting more extensive comments in writing. Thank you.

FACILITATOR SMITH: The next speaker is Dave Kisor. Maybe I'm really pronouncing it, K-i-s-o-r. Okay. Gary Lupo? Gary Hatfield? Do you still want to speak? Great. After Gary Hatfield we'll have Gerald Hillier.

MR. HATFIELD: Good evening. My name is Gary Hatfield. I'm a hunter/ conservationist and a member of the Society for the Conservation of Bighorn Sheep, Quail Unlimited. Both of those groups are volunteers for California Fish and Game and we do provide water for wildlife in the desert.

I've listened tonight to some very good comments by the Defenders of Wildlife and the Nature Conservancy and I think it's interesting that these are groups which are traditionally anti-hunting but, like them, I have a true love of biodiversity in the desert, particularly the open spaces. I've been on top of many, many mountains and one of the things that does my spirit the most good

is to have an unfettered view of horizon to horizon.

And I can't help but comment. I didn't know quite what was going to be going on here tonight. The president of the Sheep Society told me about the meeting and he was unable to attend so I'll keep my comments brief.

The desert bighorn sheep is a sensitive wildlife. It absolutely has to be able to have fairly unfettered migration routes so that rams from one herd can mix their genes with ewes from another isolated range. Without this we'll lose the sheep.

We've lost natural water and the migration routes are of course compromised by the freeways and transmission lines. The sheep site is very concerned about a big project planned out near I believe it's Nipton or Baker where it's great habitat and migration routes for bighorns.

In closing and with tongue firmly

placed in cheek I was kind of surprised to see all you developers here, but I shouldn't be, and for the guy from Germany I would like to just comment, not to single you out but being around the West a lot I've met tourists, predominantly from Germany and they love it out here because they want to get on a road that goes to nowhere and see nothing. In fact, they've asked me for directions. Where can I go and drive and not see anything?

Well that's what we're going to lose and that's all I'm going to say tonight. Thank you.

MR. HILLIER: Good evening. I'm Jerry Hillier and I'm here this evening representing the Quad State Local Governments Authority. It's an association of seven counties that are located in four of the states covered by the PEIS, three in California, one in Arizona, two in Nevada and one in Utah. We will be submitting written comments but I did want to make our presence

known tonight and express at least some concern. We organized originally around endangered species issues so we really do have a stake in the consideration of this.

Over the years I've been involved from a variety of sources in renewable energies and I find that, like the wind, they're loved in the abstract and abhorred and despised in the specific. And the comments here tonight I think reflect that.

The greatest concern of our authority is the impact on critical habitat for desert tortoise. We're currently awaiting Fish and Wildlife Service issuing the draft revised recovery plan and we don't know for sure what that's going to say although we probably have some good hints from the administrative drafts.

The point of this is that almost without exception the best siting for solar is also the best habitat for desert tortoise and while we have had our differences with Fish

and Wildlife Service over what's the best way to recover tortoise populations, it's fairly obvious that in many cases solar and desert tortoise recovery are probably not going to be compatible.

Whatever direction the PEIS takes it is going to have to, I think, specifically address mitigation and confirm that indeed the critical habitats that have been designated probably will be off limits. You see on your maps there that at least for starters that they are there, but I think that that has to be explicitly addressed.

Several people here tonight, and it has been interesting listening to the comments, have suggested a comparative, that the EIS include a comparative analysis and I believe that that really would be time well spent. There are a lot of development issues going on in the desert, military expansion being one of the most prominent of late here in California.

But I think all of those cumulative impacts have to be gathered together and looked at along with solar. And the other is to actually look at other alternative energy sources. I'm not going to sit here and proclaim coal or nuclear would be better, but they may be more efficient and certainly in terms of decisions to commit desert resources development, all sources need to be put on the table. And you'll get written comments.

FACILITATOR SMITH: Thank you. The next speaker is David Goodward and then Mary Humboldt.

MR. GOODWARD: Hello. I'm David Goodward and I am with San Bernardino Valley Audubon Society. When you come this late in the comments there's nothing new to say really so rather than a canned presentation or a prepared presentation I'll just throw some random thoughts out.

The footprint of a power plant project, whether it's wind or solar or coal,

you can't talk about the footprint in just terms of where the buildings are. Several of the other people preceding me talked about the essence of the desert being open space, untrammeled open space, and I can't emphasize that more. It's a precious resource that is hard to quantify and certainly hard to put a dollar sign on but once it's gone it's gone.

As far as mitigation goes, sure you can put some tortoise burrows in there and you can you know lab rear some animals and let them go. Again that's not the same as what God put out there. It just isn't. The desert is the desert and it's extremely special and it would be a crime to make hasty decisions that will affect not just your children and their children but just on down the line. We're going to lose something very special and I certainly hope BLM will look at all alternatives including those that really seem to be a bit out of their purview here.

My last comment I guess would be

point of source, energy generation. It just makes so much more sense, I'm sorry, it just makes much more sense to have all these roofs that are just radiating heat to do some good. So good luck. You'll be hearing from us again I'm sure.

MS. HUMBOLDT: Good evening. My name is Mary Humboldt, I'm a resident of the city of Riverside and I love the desert.

During the Depression I believe it was Herbert Hoover campaigned for a chicken in every pot and I believe there should be six solar panels on every roof in California. Bigger is not always better, small is beautiful. I love the California desert.

When I came from Minnesota in 1962, I fell in love with the desert and I urge everyone to read the books of Edmund Jaeger, a true naturalist and a man who made the desert live for everyone.

I think that the U.S. government does not own the sun. The energy harnessed

should be free and available to each home and business owner in the world and particularly in California. Just as air is free, the sun is free.

I would like to know why our elected officials, Barbara Boxer, Dianne Feinstein are not at this very important hearing. Where is Mary Bono Mack, Ken Calvert and Darrell Issa? I hope their representatives are here so they can go back to their bosses and tell them what the viewpoints of the residents are.

I believe that the hardware for these giant projects are ugly and will blight our beautiful desert. California has a very strong initiative process and I believe that this should go to a ballot and a vote of the people.

Just as we have a California Coastal Commission, perhaps we need a California Desert Commission because to take one million, I've heard different numbers,

600,000, one million, to take one million out of the 11 million acres and cover it with these giant projects is really folly, particularly when each roof here in California is crying out for solar panels. Cheap solar panels would create jobs all over the state; energy use would probably go down because people would be watching their own generation and maybe some of the big energy companies would be put of business but oh well.

Now, the last thing I want to say is that I really appreciate your holding this hearing. I wouldn't have known about this except for an article in our local paper and I think there would have been more people here if there had been time, if people had known a little bit in advance about this. Perhaps in the future you could put an ad in our local papers and public notice perhaps so we would be able to tell people about this. Thank you very much.

FACILITATOR SMITH: Thank you.

That takes us to through the list of folks who signed up and indicated they wanted to speak this evening and so now's an opportunity if you didn't sign up and you would like to come up and speak the floor's open. We'll just take you as you raise your hands.

And I want to say that you guys are very well educated in how to provide public comments and it's been really easy to control you with just the slightest flick of a card, so I appreciate that. Anybody else?

I know that one of our speakers early on, Jim Harvey, wanted to complete his comments and so unless somebody else wants an opportunity to speak we'll allow him to come back up and complete his comments. And then I can offer that to anybody else who's already spoken. So go ahead.

MR. HARVEY: Thank you, Karen, I really appreciate that. I left off talking about the perceived disconnect between the members and the activists of some of the

national environmental groups, and I want to continue that thought and talk about a presentation that we gave to the Sierra Club Desert Committee, the California and Nevada Desert Committee.

Our presentation was very critical of the Sierra Club and the NRDC staff's apparent willingness to accept the scraping and the permanently destroying potential of almost a million acres of undeveloped pristine public lands and the premise that it's necessary.

AREP believes no environment should be compromised or sacrificed under the questionable banner proclaiming to save it. Our message was actually well received, surprisingly by the club members and activists who overwhelmingly agreed with us. We believe our concept of comprehensive preservation more accurately reflects the feelings of the membership of the various environmental groups and that their staff members may be working

independently of that consensus. So please keep this in mind when you're considering the wishes of the national environmental groups. I hope you will hear from many of the members during this entire process.

Another significant concern that the Alliance has is the high water use that was mentioned earlier that's necessary to operate these enormous solar projects. Recently the governor of California issued an Executive Order to address the serious drought conditions that are plaguing the state, especially Southern California.

It is very widely accepted that Southern California basins are in depleted condition, and that's true. In a recent California Renewable Energy transmission initiative meeting, among the environmental working group, discussions on the critical condition of water availability were steered towards very responsible oversight of how big solar applicants would obtain these enormous

quantities of water that are needed to operate and whether or not they could accept the air or a dry cooling process to reduce their water consumption.

It was no surprise to us that a representative of Ivanpah's project, applicant BrightSource, expressed concern about this oversight and accountability of water use and instead recommended using general build up data that was compiled before this water crisis and is most likely outdated.

This only supports AREP's belief that many of these project applicants are predisposed to only protecting the enormous potential profits that they will enjoy if they're allowed to develop in these multi-use public lands that we own, and less concerned about the permanent negative environmental impacts that will undoubtedly result if these projects are approved.

What we are deciding here is whether or not failed 1970s big solar and 19th

century transmission technologies can somehow be repackaged and this time somehow be made palatable. Furthermore, many of these proposed solar projects will require the supplemental use of fossil fuel that was mentioned earlier to keep up with the production expectations. Will these utilities buying this power also receive the renewable portfolio standards credit for these electrons? Are we going to rely on the honesty of these corporations for complete and accurate electron accounting?

The Alliance for Responsible Energy Policy urges the participating agencies of this solar PEIS to consider our argument that large scale investor-owned solar projects are unnecessary when addressing air quality and carbon emission concerns and, in fact, may actually contribute to increases in air pollution all things considered.

Germany and Spain, as mentioned earlier, are generating 2,00 new megawatts of

truly clean distributed energy through technologies such as localized rooftop photovoltaics. These countries have embraced policies that promote localized generation. But because of extensive lobbying by many of these big solar applicants and the energy retailers here in the United States, decentralized generation has not received the incentives from our lawmakers so we can achieve what's already being achieved elsewhere.

We are moving in that direction, however, a direction that I hope will some day make this whole debate about sacrificing our public lands obsolete. Thank you for allowing me to finish my speech here.

FACILITATOR SMITH: Okay. If we have someone else who would like to add to their comments?

MS. GORDON: Hello again. My name is Holly Gordon and again I'm vice president of regulatory and legislative affairs with

AUSRA.

A couple of things I want to clarify. I appreciate all the comments that were made here tonight. Just to let you know my background, I was a plaintiff's environmental lawyer for eight years before I came to AUSRA. I've probably represented some of the folks in this room. In particular I represented folks in this room opposing the Eagle Mountain landfill that was going to be the largest landfill next to Joshua Tree National Park and we won that case.

So just so you know, most of the people who are in the solar field are on your side and they want to save the environment and the desert as well.

However, I've also represented folks who have family members who have died of asthma and cancer because they grew up next to coal plants and oil refineries. We can't have both. And as Josef said earlier from Solar Millennium if you want to stop the effects of

climate change you need solar, and the only types of solar that can compete with coal and gas in the future are large scale solar. Distributed generation has a place, but the small kilowatts that you put on your roof are just not enough to power this country and if you use electricity then you have to understand that there needs to be a balance.

I hope that we can work with everyone in this room and I think we've done so with our project on the Carrizo Plains and I think Solar Millennium has done so and Solel and Optisolar and BrightSource. I work with all of those companies, and I hope that you will contact us and work with us to build technologies that do not emit greenhouse gases. Thank you.

FACILITATOR SMITH: Okay. Would you like to come up again? Oh, you know what, there's a woman here who has not spoken yet and I appreciate you pointing that out and there was another hand. Have you spoken?

Yes. So that's an addition. Oh man, everybody wants to keep adding to their thoughts. Okay. Please.

MS. FLANAGAN: Thank you. I am Pat Flanagan, I am with the Mojave Desert Land Trust and I will be providing other comments but I do have three things to say that have not been brought up tonight. And one of them is that I'm hoping that in the PEIS as we go through with that, that we will be using staff and data that had been gathered by the USGS over the nine years that they have been working on the recoverable and vulnerability of the Mojave Desert.

They in particular have a lot of extraordinarily valuable data on soils and the types of soils that can recover and those that do not over time. And so that would be useful.

I would also like to suggest that as you look at these projects and the shipping of power that is generated in the desert

towards the coast that you look at the various maps that are available, for one the earthquake hazard map, I can leave that with you.

The earthquake hazard map and the USGS prediction that there's a 99.7 percent chance of a big earthquake in the next 30 years is what divides the desert from the coast. It also is a very good diagram of the wild land-urban interface which is extraordinarily flammable so I would also like to suggest that you include that. And I will leave the map with you.

FACILITATOR SMITH: Is there anyone else? I believe you have not yet spoken? In the back? Is that correct? Okay. Then we'll get to the people who have more to say.

MR. KATZ: Hello. I'm Gerald Katz and I work for the city of Colton electric utility even though I am not speaking for them. I've been working environmental work,

I've been working in solar for almost 30 years and I myself have been off grid for 20 years so I know how that works.

But working for a utility, and I work with a lot of the other utilities, and a lot of these traditionalists they like to deal with big megawatts because that's what our industries need.

You can definitely provide most of the energy for a home and small businesses but you get multistory buildings, you get big industry, they need a lot of power and the traditionalists in this electric utility industry, I've been in meetings and they expect big solar to fail because they love nuclear power, they love coal power and a lot of utilities have been getting our energy from strip mines 20 x 100 miles long. And if you want to talk about destruction of the land, that is destruction. If you want to talk about water being polluted and wasted, that is water being wasted and totally polluted.

So solar, big solar, your rooftops are great, do all that you can in it, but the utilities will want to do their coal and claim they can sequester it, they want to do nuclear, and if you've seen strip mines it's atrocious what it does. So you need to work out a compromise.

I came here to see the battle of the environmentalists against each other because we all really want to save our planet and make life better for everyone and we need some compromises so we can get appropriate large scale solar to satisfy the needs for industry, to make people know that.

If you read your newspapers there are all of these things about there are no alternatives. Yesterday they said well, if you want to wait a generation for solar to work -- we need nuclear now. We need coal now. So I want everyone to, you know, get together and see what lands we can build solar on that wouldn't degrade sensitive

environments. Thank you and I hope you can all get together and work things out for a better environment. Thank you.

COURT REPORTER: Can you give your name one more time please sir?

MR. KATZ: Gerald Katz. K-a-t-z.

FACILITATOR SMITH: Okay. Any other first time speakers? Okay. We'll go with you and then the others, you wanted to speak again and you and you? Okay.

MS. VIOLA: The competitive spirit of our marketplace will figure out ways to rapidly provide less expensive and more efficient photovoltaic systems to consumers. New local energy generating projects will move forward from research and development laboratories to our homes and buildings at a rapid pace this nation is capable of achieving.

Delivery systems for locally generated energy that minimize or eliminate up front costs for property owners will flourish

in a responsible energy policy environment.

AREP also encourages BLM to consider the potential energy savings that our nation could realize if our energy policy also were to favor demand side management. Venture capital and numerous products will follow, many already exist, that assist home and business owners and building engineers to reduce energy consumption without compromising lifestyles and business practices.

In closing, AREP once again wants to thank the BLM for initiating this cumulative study. We strongly encourage BLM to consider the suggestions and recommendations contained in our comments and we trust BLM will want to play a key role in moving our nation forward in the direction of responsible energy policy development.

I just want to make a couple of other comments and just to state that rooftop solar is not the only thing that needs to be considered. There's lots of ideas with the

development of thin film solar where applications can happen on multistory buildings. There's the development of solar panels on all existing parking lots which could be covered and protect cars from intense sunlight and, at the same time, generating use. Brown field development for already disturbed lands which could be developed with solar panels.

So there's many other avenues other than just rooftop development. Thank you for your time.

FACILITATOR SMITH: Thank you. We'll go with you next.

MR. HOFFMAN: Wayne Hoffman again with Optisolar. I have to say I stand here a little frustrated because I come from a background of 35 years of environmental planning. I started my career in 1970 on Earth Day setting up the first public interest research group for Ralph Nader in the state of Ohio.

We sued the coal companies there for strip mining land without reclamation. This is the kind of work I've been doing for the last 30 years as an environmental planner. This is not a bunch of profit-seeking companies coming into the desert to destroy it. And I feel compelled to refute a number of misunderstandings today.

We're developing a project on private land in California and we've searched private land incessantly for locations where we can put solar plants -- and we still are.

However, this one project we're building in California has enough solar power to offset all of the carbon dioxide from all the cars in that county. This is not a small insignificant populated county. It has enough energy production to produce energy for that entire county, electrical energy, and for those who are saying that the solution is rooftop, all I can say is you don't know the numbers and you don't know the facts because

rooftop costs on average at least twice what most of these companies are bidding into the California RFP process.

The other fact about this is that the state of California only accepts power which is competitively priced. The construction of these solar plants has been coming for 30 years. The process, for example which our company has developed, is not a breakthrough in energy technology. Thin film solar has been used successfully by Sacramento municipal utilities district for over 25 years. The technology breakthrough is in the manufacturing.

Those of you who are saying the government is not doing enough to encourage rooftop solar I agree with. I'd like to know how many of the people who are criticizing the solar companies have rooftop solar. I would be willing to bet that a lot more of the solar developers do. I do for example.

I'd like to know how many of you

drive hybrid cars.

These are issues that are dear to our heart. We're not walking into the desert mindlessly. If you look at the facts what you're going to see from this development process is a tremendous amount of protected land created by the mitigation from these plants. They're not going to happen without desert mitigation for the desert toward us.

Those companies like ours who are out there preemptively doing full scale protocol surveys are providing invaluable data to BLM and to the state of California for the protection of the species. This is not insignificant.

We're seeing several hundred thousand dollars being spent per project for this kind of thing with no guarantee these permits are going to be approved.

There's a lot of information that is going to evolve. I'm not here to say you should approve 73 solar projects. As has been

said before, most of us know that these 73 projects are not going to be able to meet the solar price requirements. I don't know how many of them will be approved. That's what we're here to talk about. We're not going to come to conclusions today about any of this.

I encourage you to continue to bring your viewpoints to the table but to continue checking the facts ahead of time before you come in with statements about what's cheaper and what's not, about what's viable and what's not, about the fact that there's this new coal plant being opened in California, I mean in China every week, and that if we're ever going to offset the global gases that come out of these plants, we're not going to do it with rooftop solar and we're not going to do it with wind energy. We're not going to do it with solar energy. We're not going to do it with nuclear energy. We're going to do it with a combination of many of these things.

This is something that we all have to live with. We've been on this planet for a heck of a long time. We've done a lot of damage in less than 100 years.

We're not going to solve this problem in three years or five years or ten years. But we're going to have to look at the sacrifices that we all have to make. And the solar companies are going to have to make some, not everybody's going to get their way.

The people who live in the desert are going to have to sacrifice. The BLM land belongs to over 300 million Americans, not to the people in this room. And it doesn't belong to the solar companies.

But we're hoping that we can find ways to develop projects and Optisolar is looking at the option of creating compatible environments with at least two major endangered species in California and yet being able to continue to develop solar projects on these properties.

So let's wait for the facts, let's wait for the studies, let's recognize that not a single project level EIS has been completed or even started to any significant degree in the state of California.

We have some progress through the CEC on some concentrated solar thermal projects, and I would also like to point out that photovoltaic projects do not use considerable amounts of water. The only water we expect to be using is during our operation for the construction of certain elements of the plant and for washing panels on approximately a once or twice a year basis using only a few acre feet of water for a 500 megawatt project.

So I'm just here to encourage everyone to be open, be honest, search for the facts and wade through the process with us. We know this is going to take a long time and while this is going on there's going to be a lot of other things happening beside this PEIS

and I think all the BLM people would tell you it's not going to solve your problems. Thank you.

FACILITATOR SMITH: The gentleman in the back, would you like to add to your comments?

MR. WALLACH: I would just like to ask folks--

FACILITATOR SMITH: Would you repeat your name please?

NR. WALLACH: Lee Wallach. I would like to ask folks to really listen to what was just said. A couple of our last speakers really touched upon some of those critical issues that are important if we're going to be moving forward.

This is a partnership. I know that the folks up here feel that it's a partnership. Some of these folks I know well and have done more than most people in this country to make sure that we have a responsible energy policy. We are a

partnership in this.

The misconceptions that are running rampant are very concerning to me and to our industry. Our solar troughs we're looking at dry cooling, we've never looked at you know significant amounts of water. We are using zero gas or other fuels to fuel our plant. I've heard comment after comment that are just unfortunately a little ill-informed. It's important that we work together in order to address these issues.

The distributed solar efforts in our country, as someone had mentioned, are a disaster. I would agree. I personally as well as my colleagues spend an enormous amount of time, not just on large scale solar but pushing real energy policy in this country, real money for distributed solar. Not just large scale solar; all of it.

So it's important that we form this partnership. It's important to us. Like my colleagues I almost live off the grid but I

have two little kids and I can't get them to turn the lights off. We can actually do this if we come to this together, and I want you to also understand that the land that we need to save, the critical areas for species, are just as critical to us.

There is a partnership here. I've seen it happen. I've seen the desert tortoise live amongst solar. We really can help to make this happen. So I look forward to what we can do in the future moving forward. And think carefully before you push too hard in an opposite direction.

Be careful what you wish for because there are folks, a lot of them out there, hoping that we fail and the next group of folks will be looking at a coal plant, will be looking at a nuke plant, will be looking at spending a whole lot more money on oil. And I wonder how many folks have died this year from Riverside County overseas. Be careful what we wish for. We have to make these

changes now. It's a failed energy policy. We can change it together. Thank you.

FACILITATOR SMITH: I see an individual in the back. I don't believe you've spoken. Come on up.

MS. NICHOLSON: My name is Melissa Nicholson and I work for the Desert Tortoise Preserve Committee. And I'm going to keep it very short and I want to concur with that the last speaker just said, and I urge you to think thoroughly about each of these projects. And when you push to open lands that have been historically conserved and been hard-won in the first place to set aside and then mention how and then we'll just mitigate, that it's not as simple as just oh we can just mitigate this land by setting aside. Because when you think of the large scale of these projects and the need to mitigate on a 1 to 3 acre ratio, where are these lands going to be found for the purposes of mitigation? And if we're setting aside these lands, are they of equal

habitat quality or are we going to be putting these animals in a place where they're doomed to not be able to survive?

And I urge you to look at the success level of the large scale translocation that's going on right now at Ft. Irwin and see how that's affecting these tortoises, and the Mojave ground squirrel, and burrowing owl. So, as I said, the push, I think you get a lot of the environmentalists who are stepping up and saying no, no, no when we see this push to open these lands that we're working so hard to conserve. And that's all I have to say. Thank you.

FACILITATOR SMITH: Thank you. Dennis also known as Denise.

MR. TRAFECANTY: Dennis Trafecanty. Well, we haven't talked about something that's going on right here in Riverside and San Bernardino County; 250 megawatts rooftop solar has been announced, I think it's a million square feet or something

like that. It's a million something.

And when Southern Cal Edison gets that one done they're going to do another one. So quit pooh-poohing rooftop solar. You're all doing it, you're developers, you want to make some money. I understand that, I'm a businessman, I own property, I own a business.

But you really need to consider, Mr. Hoffman, unfortunately you could build the best solar plant out in the desert but you're going to have to transmit the energy and that means transmission lines.

There's a plan in San Diego called the San Diego Smart Energy Plan I'm going to give to all of you and it was funded by the San Diego Foundation and it's primarily based on PV, in basin PV including commercial rooftop solar. Of course SDG&E see unfortunately for me, Mr. Hoffman, I heard a lot of what you said but I know what greed's all about. I mean I've been dealing with SDG&E for quite some time. By the way I do have

solar on my rooftop. And they're doing whatever they can to get through the state park and they're doing whatever they can to bring fossil fuel from Thailand and Russia through Mexico up through El Centro and right through the desert state park. So I'm kind of scarred by that and I'm concerned about it.

But anyway I primarily want to tell you that rooftop solar is something that's there. Chiasera has it on their parking structures. There's tons of -- in San Diego there's 3 percent less sun power coming into San Diego than there is in Riverside, just 3 percent. So we can get a lot of rooftop down there and you can get it up here and we could solve all of our energy needs with combined heat and power which UCSD does and larger buildings they're doing it in San Diego and with rooftop solar, commercial parking lots and all of us. I have 18 panels. Thank you.

FACILITATOR SMITH: Would you like to continue?

MR. MCFARLANE: I wasn't able to finish everything I was going to say. I want to go back just a little bit on my--

FACILITATOR SMITH: Would you repeat your name please?

MR. MCFARLANE: John McFarlane, Alliance for Responsible Energy Policy.

I want to go back just a second on my comments about scientific theories. I really do think that we have to dwell on that. We have to look at the interconnectedness of the entire university. But I also believe that the Alliance for Responsible Energy Policy is indeed a group of concerned citizens who have no intent whatsoever of impeding responsible progress. That's not what we've said. We haven't said do not come on the desert and build big solar plants. That's not what we're saying.

What we have been trying to say is there's more than one way to look at the issue. What I've been trying to point out is

that we have a lot of information about greenhouse gases and the fact that this planet's going to crash and burn in a decade if we don't do something. And I think we're responding to that.

We need to respond to the fact that there is scientific evidence on the other side also. There are scientists who say that that's not really the case, that greenhouse gas emissions are not all that bad, it's not going to destroy the planet and that possibly actions taken by mankind are not going to be able to stop it anyway. So we need to get back and slow down and take a look at it.

I'm not saying don't build large scale solar but I'm saying look equally at the other alternatives. Nuclear may be an alternative to large scale solar. And we've had a lot of scare tactics since Three Mile Island and Chernobyl and everybody listens to those scare tactics and let environmentalists get us to shy away from nuclear. It's

probably just as viable an option.

We're looking at developing a PEIS for solar but we also need to look at the other options, and while we're looking at solar we need to really closely look at these people who are saying rooftop solar's not the answer because it may well be -- if the government can put funding into research and development and if the government can put incentives into the companies who are researching and developing more effective rooftop solar every day, rooftop solar may be even a better alternative than big huge solar plants with long distance transmission.

And you know most of the big generation companies will not admit that long distance transmission involves loss. If you can find some of them that are willing to admit it a little bit you'll see that some of them will say, yes, there can be 7 percent loss in long distance transmission, up to 14 percent maybe during peak periods. That's not

a whole lot, 7 percent, unless you look at the fact that ratepayers are eating that loss and if we, the ratepayers, are eating 7 percent of a $100 billion dollar industry that's a lot of money.

Our research at the Alliance for a Responsible Energy Policy has shown us or led us to believe that centralized generation based on long distance transmission is outdated methods and technologies, these are less responsible than distributed energy generated at point of use through modern technologies which are becoming more available and more effective on a daily basis.

FACILITATOR SMITH: Okay. Thank you. Anybody else who's not had an opportunity to speak or has a scoping comment to continue? Well I guess we're about at the end of that and I'd like to offer DOE and BLM an opportunity if you have anything to say in closing.

MR. BORCHARD: Sure. Thank you

very much for taking time out of your busy schedules and sharing your views -- divergent views -- with us, that's what we want to hear. We want to hear everybody's viewpoint. That's part of this process, part of the transparent process.

So thank you for taking the time to come here tonight and please submit comments and continue to be involved in this process. This is just the start. Stick with us throughout the whole process.

MR. WILKINS: I'd sort of like to confirm the same thing. I'm an engineer, I tend to know a lot of the technology more so than the environmental impact, so I think I learned a lot tonight. And I'm all for the environment and I'm hoping that we can, as somebody else said, form a partnership so that we can have solar and have the environment also. I don't think it has to be one or the other -- at least I hope it doesn't have to be one or the other.

FACILITATOR SMITH: All right. Well thank you very much everyone. And appreciate your time this evening. Thank you.

(Whereupon, the Public Scoping Meeting, having been concluded, went off the record at 8:48 p.m.)