Transcript

Solar Energy Development Programmatic EIS Scoping Meeting held in Salt Lake City UT, June 25, 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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WEDNESDAY
JUNE 25, 2008

6:30 P.M.

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HAMPTON INN & SUITES
SALT LAKE CITY AIRPORT
307 NORTH ADMIRAL BYRD ROAD
SALT LAKE CITY, UTAH 84116

Facilitator:

Karen Smith
Argonne National Laboratory
Denver Office

Panel Members Present:

Jeff Rawson, Associate State Director
Bureau of Land Management, Utah State Office

Matt Craddock, Branch Chief, Lands & Realty
Bureau of Land Management, Utah State Office

Brad Ring, Project Manager
Department of Energy, Golden Field Office

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

(6:34 p.m.)

MS. SMITH: Well, welcome. I want to thank you very much for coming. We have such a small turnout tonight, it's wonderful to have some people here. My name is Karen Smith. I work for Argonne National Laboratory. Argonne has been hired by the Department of Energy and Bureau of Land Management to assist the agencies in preparing their Solar Energy Development Programmatic Environmental Impact Statement. You are attending the seventh of our series of scoping meetings for this PEIS.

I'm going to moderate the meeting tonight. I know we probably don't need microphones, but we are doing a recording and capturing transcripts of each scoping meeting. So we'll stick with the whole protocol. We'll go through and we have a series of presentations for you from the agencies about the EIS, their interests and objectives, and a

presentation from the National Renewable Energy Lab, and then we'll get to the part where you guys can make your public comments.

So our first speaker to welcome you tonight is Jeff Rawson, who is the Associate State Director for the BLM Utah State Office.

MR. RAWSON: Good evening. We're very pleased to be able to host the meeting. It looks like we'll be fortunate enough to just barely have enough chairs. But I'm very happy that we do have some -- you folks are able to come out and make it to this public meeting and our scoping session here, and welcome you from the Utah BLM.

My name's Jeff Rawson. I'm the Associate State Director for the Bureau of Land Management here in Utah. We're very pleased to be a part of this effort that's renewable energy resources, such as solar, wind, hydroelectric and geothermal. It will continue to be a priority for us to pursue those in terms of development and meeting our

nation's growing energy needs.

One of the things here -- I know that some of the other meetings have been very well attended, a lot more attendance. We do not currently have any active applications for solar energy in Utah at this point in time. But we're very happy to be a part of the Programmatic EIS that includes Utah, Arizona, New Mexico, Nevada and California. We anticipate to be a part of that effort as those applications continue to occur.

I believe that there's currently within the BLM/Department of Energy effort we have going on here 125 applications at this point in time in those states that I mentioned, again, none of which are currently here in Utah. My understanding is that those 125 applications have the potential to generate 70 billion watts of electricity via solar, which could provide power to some 20 million average American homes, which is a very valid effort.

As we consider that, one of the things we most assuredly want to do, and always do, is look at that in balance with our management of other multiple uses and resources on the public lands, which is the primary purpose of our Programmatic EIS that we'll be taking a look at to look and find that balance. The EIS will look at several alternative management strategies to do that, and hopefully reach the conclusions on which alternative would be the best route to go.

The Programmatic EIS and this meeting is one of the first steps in the process. Public scoping meetings like this continue for this effort and others to be a very important way that we can capture the comments from the public and help us formulate those alternatives and allow us to move forward for more positive energy development on the public lands.

So with that, welcome to our meeting here in Salt Lake City. Thank you.

MS. SMITH: Thank you.

The next speaker is Brad Ring. He's with the Department of Energy in the Golden, Colorado Field Office. Brad's a Project Manager with DOE.

MR. RING: Thank you. Good evening. I too want to thank you for coming to the meeting tonight and participating. It is appreciated.

I just wanted to take a few minutes to go over the DOE overall program and how it fits in with this Programmatic EIS and BLM. DOE's solar energy program, the goals are to supply energy from diverse sources, and making greater use of renewable energy, improve the quality of the environment by reducing greenhouse gas emissions.

The other portion that ties directly with that is national security. If we can do this with renewable sources, we can provide secure, sustainable, emission-free domestic energy.

The solar program goal, which is under the Department of Energy, is in line with that. We want to promote the use of solar power within the renewable energy resource management.

For 2008, the current year we're in right now, the funding is broken out by research and development of about $152 million. This is further delineated between photovoltaic, which is given about $126 million in budget, and concentrating solar power, which is given $26 million. The other portion is market transformation, and that's to promote and to have these technologies implemented domestically. Of that 18 million, some of that is going for this Programmatic Environmental Impact Statement. The remainder is for the Solar America Initiative for promoting photovoltaics and water heating activities for the 25 Solar America cities, development of codes and standards, the Solar America showcases,

training in the Solar Decathlon.

The DOE solar energy program supports high performance costs compared to these solar energy systems. How we break those out are into two general technologies, which one is photovoltaics, which most people are familiar with, which converts solar radiation directly into electricity. Presently, that has been focused -- or is growing in the distributed generation for homes and businesses. It's presently -- while the costs are dropping, it has a present -- it's a higher cost. What we look at is levelized cost of energy. That's the whole cost of the unit, from operations, management, building. What it is is cents per kilowatt.

Concentrating solar power is the other technology that concentrates the sun's solar radiation onto a heat transfer fluid, and then drives some sort of a steam -- either a steam cycle or an engine. There'll be discussions on that exactly. There's many

different tech -- or sub-technologies within those two. But that's the overall big breakout is photovoltaics and concentrating solar.

Concentrating solar allows -- or becomes more economical at the larger sizes. That's why it's considered more of a utility-based project or for utility-based projects.

DOE's interested in co-leading the preparation -- or is co-leading the preparation of this Programmatic EIS for utility-scale solar projects. And that's to generate enough power to serve tens of thousands of homes. To do this, it requires intense solar radiation, and the six states of this Programmatic EIS are prime areas for these solar resources.

To get this type of power, it's an estimate of approximately five acres per megawatt. So you can see a 250-megawatt facility would require about two square miles. Now, with the BLM, they manage 119 million

acres of federal land in these six states. So it makes a very good fit.

The results DOE expects from the Programmatic EIS is the identification of land that is appropriate for the solar deployment, both technically and environmentally, and the establishment of policies that would apply. These policies would include best management practices. The best management practices identify important or sensitive, unique habitats in the vicinity of the proposed projects, and to the extent feasible, design the projects to minimize or mitigate these impacts.

It doesn't take away this Programmatic Environmental Impact Statement's site-specific environmental analysis that will be required to be conducted. So the Programmatic Environmental Impact Statement, the results would be used to aid the process. But again, there would be a site-specific analysis.

Additionally, we hope to receive or we expect to receive from this a more accurate model for predicting the potential for solar energy development for power, but also jobs will be created, and the mitigation to climate change that's occurring.

Thank you.

MS. SMITH: Thank you, Brad.

The next speaker is Matt Craddock. He is also with the BLM Utah State Office. He's the Branch Chief for Lands and Minerals.

MR. CRADDOCK: Thank you. Welcome.

The Bureau of Land Management is an agency within the Department of Interior that manages 258 million surface acres of public lands. As mentioned in the previous slide, about 46 percent of those lands, or over 119 million acres, are located within the six-state study area of the Solar Energy Programmatic EIS. Utah has 22.8 million acres.

The BLM's multiple use mission is

to sustain the health and productivity of the public lands for the use and enjoyment of the present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development and energy production, and by conserving natural, historical and cultural resources of 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 America's public lands, the 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. Many of BLM's existing land use plans, however, do not specifically address solar energy development.

Executive Order 13212 directs federal agencies to expedite their actions as necessary to accelerate the completion of energy-related projects. The Energy Policy Act of 2005 sets a goal for BLM to approve 10,000 megawatts of non-hydropower renewable energy on the public lands by 2015.

As I mentioned, BLM must manage public lands for a variety of resource uses, including energy production. The federal energy mix managed by BLM already includes oil and gas, helium, coal, geothermal, wind and biomass, and soon utility scale solar. BLM has previously estimated that as much as two thirds of the public lands may have high potential for solar energy production.

Utility scale solar energy projects on public lands are authorized by BLM as rights-of-ways in accordance with the requirements of the Federal Land Policy and Management Act of 1976. All activities proposed on public lands must be consistent

with the terms and conditions and decisions in an approved land use plan. Before BLM can approve a solar energy development project, BLM must assess the direct, indirect and cumulative impacts of such development, and must consider other resource values, sensitive areas, and public concerns, that those are created through a NEPA process.

To date, the BLM has received more than 130 applications for solar energy projects, mainly in Southern California, Nevada and Arizona. And as Jeff mentioned, in Utah, we have no applications pending at this time.

Although this meeting is not about specific projects, you will have an opportunity to comment on those projects as they are processed. Solar applications which have already been filed with BLM will be processed on a case-by-case basis through a specific NEPA process. These pending applications will move forward on a parallel

process with the Programmatic EIS, but new applications will be deferred until the completion of this Programmatic EIS.

Under BLM's current solar energy development policy, applications are processed on a first-come-first-serve basis, each with its own specific NEPA process. BLM believes that by looking programmatically at the issues associated with solar energy development, we will be able to develop a more comprehensive, consistent and efficient program approach by which to address solar energy proposals on public lands.

The Programmatic EIS will identify, number one, public lands best suited to energy development -- solar energy development; number two, mitigation strategies and best management practices to guide future solar energy development; and three, possible additional transmission corridors needed to specifically facilitate solar energy development.

BLM believes that this Programmatic EIS will be the 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 needs for environmentally sound solar energy development.

BLM expects to amend land use plans in the six-state area to adopt the solar energy decisions made as a result of this Programmatic EIS. These meetings are an important part of the BLM planning process, as well as the NEPA process. We included proposed planning criteria in the Federal Register notice of May 29th, and are asking for your comments on those criteria during the scoping process.

Thank you.

MS. SMITH: Thank you, Matt.

Our next speaker is Lynn Billman. She's a Senior Project Leader with the

National Renewal Energy Laboratory in Golden, Colorado. NREL is assisting BLM and the DOE in preparation of the EIS by bringing its expertise with respect to solar energy resources and solar energy technologies. They created all these posters here. Lynn is going to provide a presentation about the resources and technologies.

MS. BILLMAN: Thank you very much. I'll be brief.

I just want to give an overview to you about solar technologies that are going to be included in the scope of the study. As has been mentioned, we're looking at utility scale, ten megawatts and above. That means that the use of PV panels on individual houses or individual businesses, for example, or small installations would not be part of this scope.

I'll also talk a little bit about the GIS systems that we're using to help BLM and DOE with their analyses for the PEIS, and

a little bit about the impact this modeling, as Matt mentioned, where we're using some modeling to look at the impacts over the next 20 years of solar development as it could pertain to economics, jobs, and so on in the six-state area.

Next slide. I believe it was Jeff introduced -- no, it was Brad -- introduced the concept of looking at the solar technologies as whether they generate electricity directly from sunlight, or whether they use a thermal process using the thermal properties of the sunlight. Another way to categorize these technologies is whether they are dispatchable, meaning that the utility operators can -- or the plant operators, rather -- can control when the electricity is produced, or whether it's not dispatchable and it's intermittent.

The photos here show the six different technologies we're talking about and the two groups that they fall into. The solar

technologies that are dispatchable typically have some sort of storage possibilities, cost-effective storage possibilities with them.

The first photo on the left is a parabolic trough. Again, I will just mention these pictures, and then I'm going to talk a little bit about each one. But parabolic trough, which is in the upper left corner, that has been around 15 years. That happens to be a photo of the Kramer -- the SEGS plant at Kramer Junction, California.

The third photo is a power tower. That's a little bit east of Barstow. And there's another one in Spain.

The third technology that is considered dispatchable is actually in the fifth picture, if you go over four and down one. These are a relatively newer technology called compact linear fresnel reflectors. Those are in proposal. They're pre-commercial at this stage.

The technologies without storage

that are definitely not dispatchable at this point in time include dish/Stirling engine systems. Those are shown in the fourth photograph across the top. I'll talk a little bit more about those.

Concentrating PV, that second picture at the top, shows you an example of that, and flat-plate PV that you see in the last picture in the right-hand corner.

Okay. Let's go into each of these with a little bit more detail. As I mentioned, the parabolic trough is the longest-term commercial technology, 15 years of successful operation for 360 megawatts -- SEGS -- thereabouts -- in California. The central -- you can see the details of how these operate up in the posters. But basically it's a long parabolic shaped mirror sections that have a rod running down the middle with an oil-based fluid that heats up. The hot fluid goes to a generating plant that flashes steam, and in a very traditional way

generates electricity from that.

Central receiver technology is quite different. It has, as you can see from the picture, this whole array of individual reflectors focusing on a central point that uses a molten salt material and heats it up to quite high temperatures. Then that is the source of heat for the steam for generating electricity.

The next slide mentions why we make a distinction between dispatchable power and non-dispatchable power. The red curve is kind of a typical utility load profile for the Southwest, where a lot of electricity begins to be used after -- you know, even in the daytime hours, but certainly rising at noon, peaking around 5:00 or 6:00 in the evening, but carrying on and still needing power up until, you know, 10:00 or 11:00 at night. Of course the solar production, which is the yellow shaded area behind that, tends to fall off right about the middle of that big curve.

But when you have thermal storage available, you can extend the usage period for that solar-generated electricity. That brings down the cost and makes the whole process of higher value to the consumers.

Okay. Let's see. The next slide is the non-dispatchable technologies. The dish/Stirling is an interesting technology. They are actually fairly small. Each particular unit is around 25 kilowatts. But at the center of a circular array of mirrors that focuses on one point, it focuses on a fluid that gets hot and drives a piston. That's a Stirling engine configuration. That will generate electricity right from that particular unit. Obviously, to get to ten megawatts, you need a field of 400 of these. So it'd be fairly extensive. But these kinds of projects are being considered now. There are no large projects deployed yet.

The second photo there is concentrating PV. Again, that is pre-

commercial. It uses the same kind of circular reflectors. But it focuses instead on a high-efficiency, usually multi-junction solar cell. And the solar cell is certainly the most expensive part of a PV system. By concentrating the sunlight, you can bring down the overall cost of the PV electricity.

Okay. The next one is a little bit more of these concentrating PV systems, three different types of reflectors -- as I say, this sort of circular mirrors. They also use fresnel lenses in these square configurations that refract the sunlight onto the individual solar cells. Each one of these configurations generates approximately 500 suns. It concentrates the sunlight about 500 times. The hopes are that that will dramatically bring down the cost.

All right. Next, one further point about concentrating technologies, and that is that they need to use the direct normal insolation from the sunlight. Direct normal

is the sunlight that falls -- it's hard to do with a microphone -- it falls at 90 degrees to the surface. Any diffuse sunlight is not really practically effective, and it is lost if there's clouds, if there's dust in the air or otherwise. It only uses the direct normal insolation.

Okay. What else should I say about that map? This is part of the GIS work that both Argonne does and NREL does that's supporting the Programmatic Environmental Impact Statement. The data is based on some satellite information, satellite data, and modeling. It's public information. So if you have any further questions about that, I guess we could entertain them afterwards or something.

The next slide has a little bit more information about a couple of PV flat-plate systems. They can be fixed with regards to the movement of the sun, or they can track, actually single or dual axis tracking.

The photo on the -- let me get this right -- the photo on the left is Nellis Air Force Base in Nevada. And on the right is a system in Portugal. You can get a sense of the area that these require from these photographs.

The map on the next slide -- I don't know if you -- I didn't point out, but the colors are lighter. You get less intense sunlight when you consider only the global insolation. Global insolation implies all of the sunlight that you can get reflected from clouds, reflected from the ground, reflected from dust in the air, and so on. It's less intensive, but all of that sunlight is usable to a flat-plate system.

Okay. On the next slide, I want to talk just very briefly about a couple things that we consider in the economics that will go into the environmental impact statement process, into the environmental impact study. That is the investment tax credit. As you

know, there's currently a 30 percent tax credit for solar systems. That's a significant benefit, significant incentive for development. That currently is slated to expire at the end of 2008. There have been a variety of efforts in Congress to extend that beyond. Of course, none of us know how that's going to play out. But we can certainly model it on computers.

If you go the next slide, we have done some work to look at the potential impact on solar development in the Southwest whether or not the investment tax credit gets extended. If it's not extended, the projections are rather dismal for the 20-year period -- approximate 20-year period of the study, such that by 2030, you're only looking at six or seven gigawatts of installed capacity.

And if you go to the next slide, if you make an assumption -- and this is of course an assumption -- that there would be an

eight-year extension of that, even though the investment tax credit some folks are proposing declines during that period, it still gives a tremendous boost to the industry, such that you could get something on the order of 40 gigawatts of installed capacity by 2030.

So those are some of the things that we'll be looking at along with Argonne and to the service of DOE and BLM. Thank you very much.

MS. SMITH: Thank you, Lynn.

So now you've heard presentations from the two agencies regarding the EIS and their objectives for it. And you've heard from NREL about the solar energy resources in the six-state study area, and the types of technologies that are considered to be commercially viable over a 20-year planning horizon out to 2030, which is the period of time being examined in the EIS.

So now I'm going to run through some slides. The primary intent now is to

make sure that we all have a common understanding of the process that these agencies are embarking on, and that is the preparation of an environmental impact statement under the National Environmental Policy Act, NEPA, and the process that they're inviting you to participate in.

So some overviews of definitions, terminology. What is an environmental impact statement? An EIS is a document that a federal agency needs to prepare when it's contemplating undertaking a certain action. In that document, the intent is to evaluate the environmental and socioeconomic impacts of the proposed action. So in the EIS document, they need to describe the action that they're proposing, the purpose and need for the action. They then need to assess the potential environmental socioeconomic impacts of the proposed action, as well as ways that those impacts can be mitigated. They also have to evaluate reasonable alternatives to

the proposed action and the possible impacts of those alternatives. They have to look at short-term and long-term impacts, as well as cumulative impacts, as well as the commitment of different types of resources that would be used or incurred by that project. And importantly, they need to document the public interest and concerns, and how those concerns are factored into the analysis in the EIS.

Why is this EIS being prepared? Well, NEPA requires federal agencies prepare an EIS whenever they contemplate a major action that could significantly impact the quality of the human environment. Both DOE and BLM have determined that the establishment of broad, over-arching programs that will guide decision-making in a six-state study area for all solar energy development over a 20-year horizon constitutes a major federal action. So they feel they need to prepare an EIS.

We've been referring to it as a

programmatic EIS. So just to be clear, what's the difference between a programmatic EIS and a more regular EIS? A typical EIS is prepared when you have a specific project at a specific site. You know all the elements, components of that project, and so your analysis is very clearly defined for you. The proposed action is very clearly defined.

In this case, we're not looking at specific sites or specific projects. Instead, we're looking at the establishment of very broad programs that will provide over-arching guidance to the agencies. And so in that context, we don't look at site-specific impacts. We look at impacts at a more general level, the impacts of solar energy development by technology on different types of resources. And then also at a very general level, we'll look at the ways those types of impacts can possibly be mitigated. So that's a programmatic EIS.

What is scoping? Well, scoping is

the first phase during which the public gets to be involved in preparation of an EIS. It's the phase that's held at the start of a project, and it's the phase during which the agencies get input from stakeholders on a variety of elements. They're listed here.

So the agencies during this scoping phase are seeking your input on their proposed action, as well as alternatives to the proposed action that they should consider. They'd like your input on what the significant issues are that should be considered in terms of resources that might be impacted in the study area and other concerns you have. They would like input on possible mitigation measures. They would like input if you have data that you think would be relevant to the analysis or know of published data that you think the agency should consider. They'd like to hear about that. And importantly, they're trying to collect information on who the stakeholders are and what the stakeholders'

concerns are.

We've talked quite a bit about the proposed action and alternatives. So we'll just give a little briefing of what the current thinking is on the part of the agencies regarding their proposed action and the alternatives.

The information on this slide comes pretty much straight out of the notice of intent that was published in the Federal Register on May 29th. Now, NEPA requires federal agencies have to look at the alternative of taking no action at all. That's called the "no action alternative." So this EIS will include an analysis of the no action alternative.

The best way probably to describe what no action is is maybe to have a good understanding of what the proposed action is. So moving on, the proposed action is, as you've heard, both agencies, DOE and BLM, are proposing to develop their own agency-specific

programs that will guide their decisions about solar energy development into the future in this six-state study area. These programs are going to consist of policies and mitigation strategies that will be applied to solar energy development projects that they oversee or make decisions about.

So for DOE, what this means is that their program will apply to DOE-funded solar energy projects in the six-state study area. These include projects that DOE might fund on BLM-administered lands, but also on other federal lands, state lands, private lands, tribal lands. So any project that they might fund would be subject to this program of policies and mitigation strategies.

On the other hand, for BLM, their program would apply specifically to projects on BLM-administered lands. As part of the proposed action, BLM would amend its land use plans in the six-state study area to adopt to the program so that it can be implemented.

At this time, the BLM has identified a third alternative to assess in the EIS.

Oh, before I go on, backing up, no action, then, would be the alternative of not creating these over-arching programs. And so in both cases, DOE and BLM would continue to evaluate solar energy development the way they do now, which is on a case-by-case basis. And for BLM, it's within the context of their solar energy development policy.

So then as I was saying, BLM has preliminarily identified a third alternative that they want to evaluate. It's been called the limited development alternative. Under this alternative, BLM would limit future solar energy development to those projects that are currently awaiting application approval, so from the pool of 130-some applications for which BLM determines there are complete plans of development.

So this would be a much lower level

of development than would occur under either the proposed action or the no action alternative. That's why it's called the limited development alternative. That's a BLM alternative only. It doesn't apply to DOE. At this time, DOE has not identified a third alternative to evaluate.

Well, there are a number of opportunities throughout the life of an EIS in which the public can get involved. As I said, this is the first one. It's scoping. It began on May 29th, and the scoping period will end on July 15th.

Then you can get involved in about a year. In spring of 2009, the agencies anticipate releasing their draft PEIS for public review and comment. And then it's anticipated about a year later, in the spring of 2010, a final EIS would be prepared.

I want to tell you about a public information center that we've constructed on the internet. The website address is shown

here. And if you haven't yet seen the site, I encourage you to take a look at it. There's a lot of good information up there about NEPA process, this particular EIS, solar energy resources and technologies. We also maintain project information, such as the project schedule. We keep EIS-related documents that are available up there. So the notice of intent can be downloaded, the slides we're presenting tonight, the fact sheet we've handed out. All these posters are available on that website. And as the project progresses, additional documents will be posted. The next one will be a scoping summary report. And then the draft EIS will be posted there. So it's an easy way to stay in touch with the project and the information the agencies are disseminating.

Importantly, there's an online scoping comment form. So you can go on, type in your comments. If you have supplementary information you want to append, you can add up

to ten megabytes of attachments. So that's of interest, and I'll mention that again in a minute.

We also have an e-mail notification list. So if you sign up for that, you'll get periodic updates on the project, announcements of meetings, availability releases of documents. If you registered online or gave us your e-mail address when you signed in this evening, we'll go ahead and enroll you in that e-mail list, unless you tell us you'd like to not be.

All right. So there are three different ways to provide scoping comments. One is tonight at this scoping meeting; a second one is via the project website, as I mentioned, online comment form; and then also by regular mail. And we're accepting comments through July 15th. The URL, the address for submitting comments online is shown on that first bullet. That's a very efficient way to provide your input. Another alternative is to

use this comment form that we handed out this evening. It gives you a tiny bit of space to provide your comment. So you can use this. You can write it in tonight and hand it to one of us, or take it home and fold it over and mail it in. The address on the back is the same as the address shown here. So if you have more to send us in writing, reports you want to append, you can use that address.

So for tonight, providing oral comments, these are some ground rules. We're going to go through the speakers in the order that they registered an intent to speak. Then if you didn't register, and you decide you want to speak, you'll have an opportunity. And when you make an oral comment, we'd like you to state your name and affiliation. I'm going to throw caution to the wind and dispense with the three-minute limit tonight.

Although that doesn't give you three hours, but a reasonable amount of time. I don't think that we have a time management issue at

this particular meeting.

We'd like comments to be limited to the scope of the Programmatic EIS. So we do not need comments -- we're not looking for comments on individual projects, but rather, comments on this programmatic effort. And then if you have written copies of any of your statements, you can provide those to us tonight. Anybody wearing a name tag can collect any information you want to hand in.

As I mentioned at the outset, we're creating transcripts of all of the scoping meetings. They will all be posted on the public website at some point after the final scoping meeting, which is, I believe, July 11th -- 8th, 9th -- 10th.

All right. The interesting situation is that I think the first person who signed up interested in speaking has left the room, Peter Weiner, and he's on the telephone. So that's the only person at this time who had signed up with an intent to speak. I hope

he'll return to the room. But in his absence, I open the floor to anybody else who would like to talk.

MS. VAN DAME: Is this the point that we get to ask questions?

MS. SMITH: Well, we can -- why don't we go through the comment period, and then we can take some questions to limited extent.

Okay. So you have a comment? Okay. Great.

MS. VAN DAME: Thank you. My name is Kathy Van Dame, and I'm with the Wasatch Clean Air Coalition. One of the things that I would like to suggest is that at some point the emissions not emitted and the water use not consumed as the result of these solar projects be quantified and used as part of the impact statement, because those are impacts that don't happen because we're not building coal or nuclear or burning natural gas. There's issues with land use and all of that

with all of those other ones.

At some point, it would be useful if there was an inventory of land that's already disturbed in some way to account for some land that the BLM operates already is disturbed and of lower value for environment, for ecology, and stuff like that.

And that's all I've got except for questions.

MS. SMITH: Would anybody else like to provide a comment?

(No responses.)

MS. SMITH: Okay. So Peter's out of the room. We'll allow him to complete his call. I guess we'll take some questions now. Now, I have to stress that we can take some questions, but really only for clarification of the information that's been presented this evening. We don't want to get into trying to predetermine where the EIS will take the agencies.

MS. VAN DAME: You were saying that

DOE is going to use -- be interested in different kinds of lands -- federal, other federal, BLM land, other federal land, state land, private land, tribal lands. What other kind of lands are there?

MR. RING: You're asking BLM or DOE?

MS. VAN DAME: Well, DOE is the ones that are talking about they're interested in DOE-funded projects on certain kinds of lands, and there was a list of lands. What other --

MS. SMITH: There really aren't any other kinds of lands.

MS. VAN DAME: Okay. That's --

MS. SMITH: The point is that DOE's funding can go to projects anywhere, not just BLM-administered lands.

MS. VAN DAME: So if we had some sort of thing, for instance, with making carport roofs with PVs so that you could charge your plug-in hybrids, that might be

something -- in a city -- that might be something that BLM would do?

MS. SMITH: No. The scope of this EIS, if you'll recall, is limited to utility scale.

MS. VAN DAME: Yes, yes. Sorry.

MS. SMITH: So it would be any utility scale project that DOE might have funds contributed towards.

MS. VAN DAME: So it'd have to be big.

MS. SMITH: Yes.

MS. VAN DAME: But if it was big enough?

MS. SMITH: If it was a whole lot of parking lot roofs.

MS. VAN DAME: Okay. The other question that I have is, would it be possible to model the impact of this two-year moratorium on accepting new applications for BLM land?

MS. SMITH: You know, I think

that's a question to the Reed's model, which is used by NREL, and a different set of assumptions. The EIS will include a projected development scenario that would happen under BLM's proposed action, and then a separate projected development scenario that would be associated with DOE's proposed action.

So Lynn Billman made the observation that she would need to ask some individuals that run the models. But the projected development scenario, as I understand it, is based more on a total number of acres that potentially would be available for development, and a variety of factors, such as access to transmission, cost of other fuels, and so forth.

MS. VAN DAME: For sure the --

MS. SMITH: I'm not sure we could model it. One could probably speculate about it.

MS. VAN DAME: But it would certainly have impacts. It would certainly

have impacts that are somewhat --

MS. SMITH: Now you're making a comment, and if you want to come back up, we can make a comment.

MS. VAN DAME: Make a comment? Oh. I'll make a comment.

MS. SMITH: Please do. And for the reporter, could you repeat again --

MS. VAN DAME: I'm Kathy Van Dame, and I'm still with the Wasatch Clean Air Coalition.

MS. SMITH: Thank you.

MS. VAN DAME: I would comment that interrupting the flow, for want of a better word, of solar projects would have a similar dampening effect to the one that you mentioned -- I'm sorry --

MS. SMITH: Lynn Billman.

MS. VAN DAME: Lynn -- that Lynn mentioned where she said, over a 20-year horizon, if the tax credit was not renewed, over 20 years, there'd be a difference

between -- how many? You remember.

MS. SMITH: Lynn?

MS. BILLMAN: Six and forty.

MS. VAN DAME: Six and forty. So just, you know, doing a back of the envelope calculation, you're talking about 40 -- 34 divided by two -- one -- 17 --

MS. SMITH: We can't really answer your question about the ability to project that or incorporate that into the model, but we appreciate your comment, concerns about the moratorium.

Okay. Peter has come back into the room. Would you like to make your comment? And we'd like you to state your name and affiliation.

MR. WEINER: Peter Weiner representing the Center for Energy Efficiency and Renewable Technology and other solar industry members.

I've testified before, not before the three of you, but I was in Sacramento, and

my testimony's in the record, so I won't repeat that. I want to talk just about one thing and emphasize it tonight, which is the moratorium. We have objected to the moratorium for a number of reasons. The principal reason is that this is a time, from our point of view, in the history of our country and our planet when we need to provide incentives for low-carbon energy, not disincentives.

So energy is a nascent industry where capital is not centered in the industry, but rather, available to it when it looks like there are opportunities. To the extent that there is a moratorium for three years -- and we think it will be at least three years before this is finished -- that capital will go elsewhere. It'll go into fossil fuels and other pollution-generating fossil fuels that are available.

We don't think that's good for solar energy. We don't think it's good for

the environment.

There are ways to deal with the moratorium that don't result in the wholesale dissection of BLM lands. First, every application is subject to a full NEPA analysis. So it's not that easy. Second, no one's going to build solar energy where there isn't transmission. So it's taking quite a risk to put in an application while the PEIS is going out to figure out where transmission should be.

But the way in which the moratorium can be changed is this: For one thing, in environmentally sensitive areas, such as ACECs, and in California we have desert wildlife management areas, or DWMAs, one can be flexible to allow applications where habitat conservation plans or other state conservation plans that are even more stringent are adopted so that there can be limited development on those lands.

More importantly, perhaps, for

purposes of environmental protection and incentives for solar energy, one can easily allow applications where we don't have environmentally sensitive lands. On those lands which are not environmentally sensitive, and there are many BLM lands that are not, there is no reason why we shouldn't incentivize solar energy to locate there rather than on environmentally sensitive lands. One way to do that is not to have a moratorium on those lands.

So we would welcome a further discussion with BLM about that. We are sensitive to the protection of species and habitat. But we also think there are ways to accomplish a PEIS investigation and determination without killing the industry.

Thank you very much.

MS. SMITH: Thank you. Any other comments?

(No responses.)

MS. SMITH: Any other questions?

(No responses.)

MS. SMITH: Well, this has been a short meeting. We really appreciate those of you who attended and your participation. I'm sure folks will be around in the room for a little bit longer, so if you want to approach anybody, we're here.

Thank you.

(Meeting adjourned at 7:25 p.m.)