Transcript

Solar Energy Development Programmatic EIS Scoping Meeting held in Golden CO, June 23, 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 23, 2008

6:30 P.M.

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MARRIOTT DENVER WEST
1717 DENVER WEST BOULEVARD
GOLDEN, COLORADO 80401

Facilitator:

Karen Smith
Argonne National Laboratory
Denver Office

Panel Members Present:

Duane Spencer, Acting Deputy State Director
Bureau of Land Management, Colorado State Office

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

Linda Resseguie, Manager, Solar PEIS
Bureau of Land Management, Washington Office

Doug Dahle, Senior Program Manager
National Renewable Energy Lab

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(6:32 p.m.)

MS. SMITH: I want to welcome everybody. My name is Karen Smith. I work for Argonne National Laboratory, and I'm located here in Lakewood, Colorado. Argonne has been hired by the Department of Energy and the BLM to prepare the Solar -- help them prepare the Solar Energy Development Programmatic Environmental Impact Statement. So welcome to our scoping meeting this evening.

The way it's going to run, we're going to have a series of presentations for you, a brief question-and-answer period, and we'll try to get as quickly as we can to taking public comment on the EIS and the scope of the EIS. That's the whole point of our meeting tonight.

Our first speaker I want to introduce to you is Duane Spencer. He's with the BLM Colorado State Office. He's the

Acting Deputy State Director for the Division of Energy, Lands and Minerals. Thank you, Duane.

MR. SPENCER: Well, good evening to everyone. On behalf of BLM Colorado, I'd like to welcome everyone to the scoping session. It's very gratifying in our process to see public interested when we do have scoping.

So it's clear that renewable energy will play an increasingly important role in our future energy needs. So it's very welcome, and the timing of this document is very good. So we look forward to hearing your comments, and thank you for attending.

MS. SMITH: I should mention, we have a court reporter here tonight, and we're trying to get everything on transcripts. We missed that first piece, but we can fill it in. I'm sure you can repeat it.

MR. SPENCER: Oh, exactly, yes.

MS. SMITH: Okay. The next speaker is Brad Ring, and he's with the Department of

Energy's Golden Field Office. He's a project manager with DOE.

MR. RING: Thank you for coming to this meeting. We really appreciate your participation. I'll just go over a short presentation on DOE's program and how it relates to this scoping, the Programmatic EIS.

DOE goals are to add energy supply that's diverse, from diverse sources, making good use of renewable sources. It's really a national security issue, we feel. And what we want is to secure a sustainable -- or to provide secure, sustainable, emission-free, domestic energy. While we can do this with solar energy, we can also improve the quality of the environment by reducing greenhouse gas emissions, and overall limiting the environmental impacts while completing this.

Under the DOE is the solar program. We fit right in with those goals -- increased use of solar power from the domestic and emission-free standpoint.

The solar program in this year has about $170 million budget. As you can see, 152 million of that was for research and development. That's further broken out -- about 126 million goes to photovoltaics, 26 million goes to concentrating solar power. This budget is increased from previous years, and we feel we really are gaining a lot of research and development improvements in these -- both of these technologies. There's also about 18 million that goes to market transformation. It's broken out about 2 and a half million for concentrating solar power, and the remainder is for solar American initiatives, which are for activities for the 25 solar American cities, which Denver is one of those, development of codes and standards, solar America showcases, training, and the solar decathlon.

DOE's solar energy program is really broken into two different technologies. One of them that everyone's pretty familiar

with, I believe, is the photovoltaics, which creates energy directly from the sun. One of the problems right now -- the -- while this has been improved as far as the cost associated with producing that energy, it is still high. Improvements are made -- we consider that levelized cost of energy.

The other technology is concentrating photovoltaic- -- or concentrating solar power -- excuse me. As the name describes, it concentrates the solar onto a heat transfer -- or a high temperature fluid -- excuse me -- creates steam, drives a turbine cycle. So those are generally the two technologies. There's some overlap in between where we can have a concentrating photovoltaic system. But overall, those are the two that we look at and are trying to improve.

Why is DOE part of this Programmatic EIS with BLM? Utility scale projects, to generate enough power for tens of thousands of homes or businesses in the U.S.,

requires intense solar energy. There are six -- and the six states included in this Programmatic EIS have the best solar resources. Generally it requires about five acres for each megawatt. So you can see about a 250-megawatt facility would require two square miles of area. So it seemed to be a natural fit. BLM manages 119 million acres of federal land in these six states.

DOE expects from this Programmatic EIS identification of the land that is appropriate for solar deployment, both from a technical and environmental standpoint, establishment of policies that would apply to solar energy projects, supported by DOE, and that really comes about as best-management practices. Those are identification of sensitive or unique habitats in the vicinity of the projects, and to the extent feasible, have designs in place to minimize or mitigate these impacts.

That does not take away from the

tiering associated with environmental analysis. Site-specific environmental analysis would be conducted. If these projects do occur, it would just be tiered within this Programmatic Environmental Impact Statement.

We also expect more accurate modeling for prediction of solar energy development and all the other associated attributes with that, including the power, the jobs, and hopefully the mitigation to climate change.

That's all I have. Thank you.

MS. SMITH: Okay. Thank you, Brad.

The next speaker is Linda Resseguie. She's with BLM's Washington, DC office, and she's BLM's manager for the Solar Programmatic EIS.

MS. RESSEGUIE: Good evening, and welcome to our meeting. I appreciate all of you taking the time to come and share your thoughts and concerns about solar energy with

us.

This is our fifth meeting. This is the first time Karen has allowed us to advance slides ourself. So we'll see how that goes for me.

(Pause.)

Not well.

(Laughter.)

There we go. The Bureau of Land Management is an agency within the Department of the Interior that manages 258 million surface acres. Those acres are depicted on this slide -- mostly in the Western United States, including Alaska. About 46 percent of those lands are located in the six-state study area, and about 8.3 million in Colorado, mostly in Western Colorado.

The BLM's multiple use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities

as outdoor recreation, livestock grazing, mineral development and energy production, and also by conserving natural, historical and cultural resources on the public lands.

Solar energy is one of the many energy resources now being developed or considered for 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 which guides 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.

Why is BLM involved in the Programmatic Environmental Impact Statement? The two reasons shown here are Executive Order 1321.12 that was enacted in 2001 -- or signed

in 2001, I should say -- and it directs federal agencies to estab- -- to expedite their actions as necessary to accelerate the completion of energy-related projects. And the Energy Policy Act of 2005 sets a goal for BLM to approve 10,000 megawatts of non-hydro-power 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, 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 power energy production.

Utility scale solar projects on public lands are authorized by BLM as rights of way under the Federal Land Policy and Management Act. All activities proposed on public lands, such as rights of ways, or I

should say, including rights of ways, must be consistent with the terms, conditions and decisions in approved land use plans. Before BLM can approve a solar energy development project, it must assess the direct, indirect and cumulative impacts of such development, and must consider other resource values, sensitive areas, and public concerns, all completed through a NEPA process.

To date, the BLM has received more than 130 solar energy project applications, mainly in Southern California, Nevada and Arizona. 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, site-specific basis with NEPA. These applications will move forward on a parallel process while the Programmatic EIS is being undertaken. But new applications will not be accepted until

completion of the Programmatic EIS.

What are BLM's programmatic goals? Under BLM's current solar energy development policy -- and that was written in April of 2007 -- applications are processed on a first-come, first-serve basis, each with its own site-specific NEPA. 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 by which to address solar energy proposals on public lands.

The Programmatic EIS will identify public lands best suited to solar energy development, mitigation strategies, and best management practices to guide future solar energy development, and possible additional transmission corridors needed to specifically facilitate solar energy development. We think that the Programmatic EIS will be key in advancing the understanding about the impacts

of solar energy development and how best to deal with those impacts, and that the resulting decisions will better foster and support the nation's need for environmentally sound solar energy development.

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

Thank you.

MS. SMITH: Thank you, Linda.

Our next speaker is Doug Dahle. He's with the National Renewable Energy Laboratory. He's a senior program manager. NREL is also providing support to DOE and BLM in the preparation of this EIS in terms of

technical knowledge of solar energy resources and technologies. Doug is going to give an overview of that now.

MR. DAHLE: Thank you. It's a pleasure to have you here tonight. It's also a pleasure to be partnering with BLM again. I had the wonderful opportunity to work with them on a wind programmatic EIS that turned out extremely successful, and added up to the same thing in terms of addressing environmental impacts of the wind development.

Basically, I'm going to cover three things -- a brief overview of the solar energy technologies; we're going to talk a little bit about the geographical information based solar resources that we use and will be applied in a lot of the analyses in terms of where the high potential sites are; and then we'll also give you a couple of slides on some federal policies that have a huge impact on facilitating accelerated development of renewable energy.

So we'll talk about -- Brad had introduced that basically we're talking about photovoltaics and concentrating solar power. The other grouping that I would characterize them is dispatchable and non-dispatchable. Dispatchable means they could actually be delivered following peak needs, for example, for a utility company, and we'll talk about that in a minute.

The first one I would focus on and talk about is parabolic trough. This is actually a commercial technology. The system you see here is in Kramer Junction in the Mojave Desert in California. It's been operating since 1984 continuously. So we've got almost 20 years of performance experience. One of the unique things about this -- and we're delighted with the R&D that's bringing along thermal storage, which is the way dispatchable power systems will work in the solar field -- is this actually had a gas hybrid system. And that was to augment when

the sun went down. Southern California Edison's peak was at 7:30, 8:00 at night, and solar wasn't producing. The nice feature now is solar -- the thermal storage now is based on thermal power generated during the sunny day, and you can actually dispatch it after the sun's gone down rather than running fossil fuel hybrid systems.

The next technology is the power tower. This is something -- I don't know if you've ever had the chance to drive I-40 south of Barstow, where in Daggett, California, the very first power tower was built back in the '80s. This is one of those fantastic examples of dispatchable power in the fact that, during one week about ten years ago, this particular plant was working and delivering power 24 hours a day for about six days until the clouds had accumulated such that it could not deliver 24-hour power. But that's something that is actually surprising about solar. Everybody thinks it just runs during the day,

and that's it.

The last one I'd like to talk about is this one right here. It's called the linear fresnel -- it's called the compact linear fresnel reflector. A fairly new technology, it works a little differently than the parabolic trough. In the parabolic trough system, it's a mirror shaped like this with a tube, and the direct normal sunlight hits that tube, heats a thermodynamic fluid. In this particular case, you'll see basically it's almost flat mirrors, and the tube is water-filled, generates high-pressure steam, but the tube does not move at all. It's an interesting technology that's come from Australia.

In the storage -- the systems without storage are basically what's called concentrating photovoltaics. And we'll get into that in a little bit. Basically, it uses a lot less solar cells actually to generate power. We'll talk about the details of that.

Another one in the area of concentrating solar power is called the dish/Stirling engine. Basically it's a focusing on -- it's a point-focusing system that hits basically a circle about this big, concentrates the light, heats hydrogen, and drives a two-piston engine -- very effective, very efficient. It's not your internal combustion that you're used to in a car. It's a two-cylinder Stirling engine.

The last we'll talk about is what you know as the flat-plate photovoltaics. We'll go on and get into them.

Here's the concentrating solar power with the dispatchable capability. Again, the parabolic troughs we just talked about, these are commercial. Just about a month ago, Arizona Public Service announced plans to build a 250-megawatt plant in Arizona with six hours of thermal storage, allowing them to hit their peaks in the morning and in the evening.

This is the one I talked about, the central receiver, the power tower. This is the one that offers probably the best in terms of thermal storage. Sometimes they're direct steam, but most of them are using a molten salt at that receiver where all these heliostats all focus on that. That tower gets up to like 500 degrees-C. They can store the molten salt and deliver over almost 70 percent of the day.

Why is that beneficial? The issue of dispatchable power is the fact that -- what's shown here is that dotted line is some hypothetical utility system load curve during a day. Typically -- and this is very common -- Southern California has a 7:00 a.m. peak and a 7:30 peak. San Diego Gas & Electric, very similar. The solar resource just isn't there in the morning typically. And the peaks, particularly in the summer, is always during the middle of the day. So you could use this as a peaking plant, but the

thermal storage allows you to be able to hit that peak after the sun's gone down, and allows you to carry the power delivery beyond the end of daylight. It reduces the cost. And that's the most expensive power that any utility actually provides to consumers.

The last two concentrating solar power systems are basically the dish/Stirling that I just talked about. Our sister lab, Sandia National Laboratory, has been working with a developer of this particular technology for about six years. They've really refined the Stirling engine, refined the optical characteristics of the mirrors, and they are basically going to go commercial. They have right now power purchase agreements with San Diego Gas & Electric and Southern California Edison combined about 1,000 megawatts to deploy this particular technology.

The other one that is in the concentrating family is concentrating photovoltaics. What this is is it takes the

sunlight, focuses on a few solar cells, which the essence of this is, believe it or not -- and I'll talk about it on the next slide -- it creates the equivalent of 500 suns in terms of sunlight, a high concentration. They use multi-junction cells. The essence of this is you need less photovoltaic cells to generate the same amount of power, using about 1/500th as you would let's say in a flat-plate system. The efficiency doesn't change, but the fact is you don't have to buy the most expensive part. You don't have to deploy the most expensive element of photovoltaic systems, which is actually the cells themselves.

Here's three different versions of that same approach, which is using basically the parabolic dish for photovoltaics. There's another one called concentrating PV, and here it's called refractive because it's kind of like the lens you see on a florescent, where it's got the diamond shape. What this is is sort of the reverse of that. It brings in the

sunlight and focuses it, refracts the sunlight onto a specific cell. Again, the cell's use is about 1/500th of what you would use normally.

Similar, there's a third technology that's called reflective with an optical rod. Same principle is that you actually increase the power delivered to the solar cells.

Basically, all of these technologies we just talked about -- parabolic trough, linear fresnel lens, power tower, dish/Stirling, and the concentrating PVUs -- what's called direct normal insolation. This is a map that matched Linda's, and this is the overlay of that same amount of BLM in the six states with the solar resource. Basically, what we're looking at -- it's kind of hard to see -- but basically, we're looking at, when we're doing our analysis of high-potential sites, we're looking at five kilowatt hours per day per meter squared. So it's basically-- pretty much it goes all the way up -- most

of this coverage here is five kilowatt hours per meter squared per day.

Commercially right now today, if you were going to ask a developer what kind of sites, he's looking at six kilowatt hours per meter squared. But we're looking at a 20-year period, and we wanted to expand the boundaries of what the maximum potential might be on BLM lands.

Next slide talks about what we talked -- that Brad introduced. It's sort of the conventional photovoltaic panels. These are flat-plate systems. The other thing we're talking about throughout this study is utility scale photovoltaics. We're not talking about the PV on the roofs in terms of our analysis. It's basically on public lands, large systems.

This is the first and biggest in the United States, a photovoltaic system that was installed at the Nellis Air Force Base in Las Vegas, Nevada. It's 14.2 megawatts, and

it's a single-axis tracking system. So they're at the appropriate tilt that you would do a PV system at azimuth, and then it tracks east to west the sun to increase its power production potential.

The other slide here is just showing again the magnitude of a ten-megawatt or larger PV system. This is in Portugal. And it shows that it takes up quite a bit of land. The area Brad talked about, concentrating solar power, we're looking at five acres per megawatt. PV typically is more in the six to seven, maybe eight, depending on the technology. The thermal storage we talked about on that large project in Arizona Public Service, if there's no thermal storage, it is about five acres per megawatt. You add the thermal storage, about 50 percent increase. So you're looking at seven to eight acres per megawatt for that high-potential thermal storage system.

In terms of the resources for the

photovoltaics, it's the same map. It's a little bit different resource. This is called global solar radiation. What that is, the direct normal that we talked about on the previous one is basically, if you're standing out in the sun, you had a mirror, there's a direct normal hits 90 degrees to that. Global solar resource, about 80 percent of it is this direct normal, and the rest of it is scattered light that gives you the sunburn even if you're standing under a tree.

So this is the solar resource that we'll be using to identify high potential sites, particularly for photovoltaics.

The last thing I'm going to talk about is just sort of the economics of this. For the solar development -- solar technologies development, there's a solar investment tax credit provided by the federal government. Unfortunately, it expires December 31st of this year. What it provides is a 30 percent tax credit -- this is after

tax -- credit to a private developer for doing renewable power systems. A hundred-megawatt system with thermal storage, you're talking $550 million investment. Huge impact in terms of reducing the financing and the debt service on a project.

What we've done -- and -- and the essence of it also, this particular graph shows that if -- the levelized cost without the tax credit, you could maybe deliver a concentrating solar power system that might deliver 15, 16 cents a kilowatt hour. You add this investment tax credit, it reduces that by about 20 percent. Now you're in the 12, 13, 14 cent range. And if you're in Southern California, that's actually what you pay right now, even at the residential level.

The effect of this is, if it's not renewed, we use what's called the Reed's model. It's a very sophisticated linear model that NREL developed -- hundreds of variables. It looks at 350 transmission and regions

broken out in the country, and applies the renewable portfolio standards it states, a variety of financial incentives, and it makes a prediction -- it -- it considers the fact that there's possible system on the -- new coal plants coming online, maybe new nuclear. It looks at what's existing on the system. Is there capacity to be able to bring in a hundred-megawatt concentrating solar power and actually get it to market?

What this shows here is this investment tax credit for the solar components of all those energy utility systems out there. In the next 20 years, the study period of this particular Programmatic EIS, you might get six gigawatts of power. That's 6,000 megawatts. That's pretty big. That's, you know, five, six, seven large coal plants or a nuclear plant.

With the tax credit, does it have an impact? It certainly does. We're looking at, in that same 20-year period, with the tax

credit, the financial investment would be substantial, and we might see 35, 38, 40 gigawatts, or 40,000 megawatts of solar power in this country.

And that's all I have.

MS. SMITH: Thank you, Doug.

Okay. So now you've heard from both of the agencies, DOE and BLM, their perspective, and their reasons, objectives in preparing the solar EIS, and you've heard from NREL a bit of information about solar resources in the study area that we're looking at, the six states, and the technologies that'll be considered in the scope of the EIS over the 20-year horizon that this EIS is intended to consider.

I'm going to go through some slides now. I'll try to move pretty quickly, but I want to give everybody a common understanding of the process that these agencies are kicking off and inviting you to become involved in. That's the NEPA process, National

Environmental Policy Act.

Some of you who may not be familiar with the terminology, we'll do some quick definitions. What is an environmental impact statement? An EIS is a document that agencies prepare when they want to -- when they need to evaluate potential impacts, environmental and socioeconomic impacts of a proposed action. And so the document first describes for you what the proposed action is, and then it talks about the purpose and need for the proposed action. It also should present to you the -- it should assess the potential environmental impacts of the proposed action, as well as ways that those impacts might be mitigated. It has to also consider reasonable alternatives to the proposed action, and also assess impacts and mitigation opportunities for those alternatives. It has to look at short and long-term impacts, as well as cumulative impacts, and the commitment of resources that might be incurred by the

action. Then, importantly, it also needs to describe what the public concerns are with respect to this action and how those concerns have been factored and considered by the agencies.

Why is this particular EIS being prepared? NEPA requires federal agencies prepare an EIS when they're proposing a major federal action that might or potentially could result in significant impacts to the quality of the human environment. In this case, the agencies are proposing to develop very broad, large-scale programs that will be applicable for 20 years and influence or govern their decision-making over solar energy development. So they both determined that this constitutes a major federal action.

It's important that we understand what is the difference between a programmatic EIS and a regular EIS. A regular EIS is an analysis that's prepared when you have a very specific proposed action, a specific project,

and a specific location. And so you can very well define all the elements of that activity, and you know where it's being proposed to take place. So that's a site-specific or a typical EIS looks at those.

But this is a programmatic EIS, meaning we're evaluating the potential effects of a very broad program. We're not looking at -- we don't have specific sites to consider in this document or specific projects of size and all the components have been identified. Study agencies are undertaking establishment of programs, and so they're going to just look at a very broad, high-level, what are the possible impacts of this program? What are the impacts in general terms of solar energy development? And again, in general terms, what are the opportunities to mitigate those impacts? That's a distinction between a programmatic and a more generic EIS.

All right. So what is the scoping process? We've invited you to a scoping

meeting. This is the first step in which the public can be involved in preparation of an EIS. It's the phase in the project where the agencies are asking stakeholders to provide them input on what should be considered in the scope of the EIS. So they want your input on the things that are listed here. They'd like your input on the proposed action, and reasonable alternatives to consider to that proposed action. They'd like your input on, what are the significant issues that should be analyzed? What are the impacts of greatest concern to you? What are the resources in the study area of great concern? And they'd also like input on possible mitigation measures that could be applied to mitigate the impacts. And then also if you have data available that would be relevant to the analysis in the EIS, they'd love to receive that so that they can factor that into the study.

And then, importantly, they're trying to gather information about, who is

interested in this action? Who are the stakeholders, and what are the stakeholders' concerns?

Now, I've mentioned a lot about alternatives and proposed actions. So we'll give you a little bit of baseline information. The information on this slide comes right out of the notice of intent that was published in the Federal Register on May 29th.

NEPA requires that whenever agencies prepare an EIS, that they always evaluate the alternative of taking no action at all. So that's called the no-action alternative, and this EIS will assess that. The best way to describe what that means is to have a good understanding of what the actual proposed action is.

So, essentially, under the proposed action, both DOE and BLM are proposing to develop agency-specific programs that are going to govern their decisions about solar energy development in the six-state study area

over the next 20 years. These programs will consist of policies and mitigation strategies that would be applied to their decisions about solar energy development.

So in the case of DOE, this program would apply to solar energy projects that are funded by DOE in the future. These could be projects on BLM-administered lands, but they could also be projects on DOE or other federal lands, state lands, private lands, tribal lands. So anything that DOE might fund could fall under the scope of this program.

For BLM, the program would apply to decisions they make about solar energy development specifically on BLM-administered lands. In the case of BLM, the proposed action would include amending land use plans, BLM's land use plans in the study area to adopt this new program.

Now, a third alternative has been identified by BLM. And at this stage, there is no third alternative for DOE's

consideration. BLM has determined that they would evaluate what they're calling a limited development alternative. Under this alternative, solar energy development would be limited to those projects that are currently awaiting application approval for which BLM determines they have complete plans of development. So you can see this would be a much more limited level of development, particularly in comparison to the proposed action and the no action.

And I think I forgot to back up after I described the proposed action. In context to that, just to explain the no action alternative, that would be the agencies would not establish these programs to guide their future decision-making, and instead they would continue to make the decisions on a case-by-case basis, as they're currently doing.

All right. So those are the proposed action and alternatives. There are a number of opportunities throughout the life of

an EIS for you to be involved. The first one is scoping. It began on May 29th, and this phase will end on July 15th. Then the draft EIS will be published for public review and comment, and that's anticipated in the spring of 2009. And then the final EIS is anticipated about a year later, in the spring of 2010.

We've developed a public information website for you. The URL is listed here. If you haven't seen this site, I invite you to go out and take a look at it. There's a lot of very useful information about this EIS, about solar energy resources, the technologies we're considering. There are also EIS-related documents. For example, this presentation is available to download from the site, all the posters that NREL has created, the fact sheet we're handing out. And we'll continue to post documents as the PEIS progresses and documents are generated. The next thing will be a summary of the scoping

process.

Other information about the project, including schedules, information about public meetings, they all get posted up there. Importantly for this phase, there's an online comment form where you can submit scoping comments. And we have an e-mail notification list. So if you sign up for that, you'll get updates about the project. If you have signed up to attend one of these meetings online, registered online, or if you gave us your e-mail address when you signed in tonight, you'll be automatically enrolled on our e-mail notification list unless you ask us not to be.

Okay. Now, this is the stage where we're going to have a brief question-and-answer period, about five minutes. The intent of this is to allow you to ask any questions for clarification on what you've heard this evening. So we're not going to drift into questions about policy decisions or comments

that you want to impart. This is purely a period for some clarification. I'll be able to come around with the microphone, and you can direct your questions to the folks up here at the table, if we have any.

So are there any questions for clarification?

SPEAKER FROM AUDIENCE: My name is Bob Braddock. The Programmatic EIS that's going to cover all the BLM land, does that -- do the 130 projects that are in application now, are they already preparing their own EISs for their particular projects?

MS. RESSEGUIE: The 130 applications that will go forward during this PEIS, yes, will have their own site-specific environmental impact statements that will be prepared. As those companies work with BLM to give us good specifics about what they propose to do, then they will be ready for a notice of intent, scoping, their own individual NEPA analysis.

MS. SMITH: Any other questions?

SPEAKER FROM AUDIENCE: Thank you. You've recently completed or soon to complete a PEIS for geothermal. How do those two programs overlap, or do they?

MS. RESSEGUIE: I don't think that there's really any overlap except that, obviously, they're both renewable energy programmatic environmental impact statements. Maybe you could clarify your question just a little bit. The two are on two different tracks. I mean, it's a separate process for each. I'm not quite sure what --

SPEAKER FROM AUDIENCE: I guess I'm just curious as to how -- you know, obviously, these are both efforts to stimulate renewable development on a certain set of federal lands. How does that look if I've got a developer that looks at a piece of land for a solar project, and the same developer's looking at it for -- or another developer's looking at it for a geothermal prospect? How do those work

together?

MS. RESSEGUIE: You know, I am not aware, but there's a lot I'm not aware of. Okay? I am not aware of any overlap between geothermal and solar. But we do have some overlap with solar and wind energy projects. Because BLM has this first-come-first-serve program, basically, whoever filed the application first will be the one that's processed.

MS. SMITH: All right. One more.

SPEAKER FROM AUDIENCE: You mentioned land use plans. And I was wondering, are you still doing resource management plans? Is that a different category? And how do those relate?

MS. RESSEGUIE: I use the term "land use plans" as sort of the broad definition. But resource management plans and also management framework plans is another term that we use. So when I say "land use plans," resource management plans is what I'm

talking about.

SPEAKER FROM AUDIENCE: Who -- what is the plan for the hardware at the installation and service and maintenance on the hardware of the solar panels? Is that supplied by the Department of Energy, or is this open to private investors?

MR. DAHLE: The expectation with regard to public lands is there would be a right-of-way application completed, they do the EIS, and it would be privately developed, privately maintained. In the actual solar development policy that guides BLM field offices dealing with these applications, actually there's a formula in terms of a revenue, or if you will, the lease land value. But basically it's totally private development. DOE's involvement may -- could occur in some of the market transformation funds we saw. And some of it's R&D. One of the things that NREL does, for let's say parabolic trough, is provides -- they have

some interesting tools that basically allows for optimizing the optical efficiency of a system. So they can conceivably support the developer when they're getting the thing installed, and actually run a lot of tests and improve the optical efficiency. But that's about it. It's totally privately owned, operated, maintained, and if ever removed, remove the system at the end of its economic life.

MS. SMITH: Okay. Another question.

SPEAKER FROM AUDIENCE: I saw in the documents that you're also considering designating corridors for transmission. I was wondering how you're coordinating with the other corridor process, the Westwide Energy Corridors, that DOE and BLM are also partnering on.

MS. RESSEGUIE: Okay. I can't help this. Very carefully. We are aware -- we do intend to fully integrate the work that's

already been done in the Westwide Corridor Plan. But we want to take the opportunity to specifically look -- as we identify areas with high solar resource potential that may be suitable for development, we want to make sure that if additional corridors are needed on BLM lands, that those corridors are identified in this effort.

Westwide looked at all possibilities of energy, but that work was done -- I'm not sure -- a year or so ago. But anyway, it's been going on for a while. We have more information about solar resources. And this is going to focus specifically on solar. So we want to make sure if any additional corridors are needed, that we don't lose the opportunity to identify them, and then amend land use plans for that purpose.

MS. SMITH: And, Linda, if I could clarify. I'm not sure it was mentioned. These would be corridors solely on BLM-administered lands, whereas the Westwide

Corridor Initiative is multiple agencies.

MS. RESSEGUIE: And a question you didn't ask, but has been asked at other meetings, we're also working with the Renewable Energy Transmission Initiative in California and the Western Governors Association Renewable Energy Zone Projects. We intend to work closely with those two efforts so that we can all benefit from the research and analysis that are going into those efforts as well.

MS. SMITH: Okay. I think we'll go on now into the -- get into the comment part. So quickly, there are three different ways you can provide scoping comments. One is at the scoping meeting this evening. Another is via the project website online comment form, and then via mail. And we'll be accepting comments through July 15th, 2008. Written comments, just to reiterate, bang it into you, there's the URL for the online comment form on the website, or you can navigate to it from

the home page. If you want to attach comments or supplemental information to your comments, you can attach up to ten megabytes worth of file.

You can also submit comments by filling out one of our paper comment forms that were handed out this evening. There's not a lot of room, but if you don't have a lot to say, and it'll fit there, you can use this, and then either hand it to one of us tonight, or take it home, fold it up, and mail it in to us. The address is on the back. You can send other written comments to that same address and any supplemental information -- reports, data sets, et cetera.

Then for tonight, here are the ground rules for providing oral comments. We're going to call speakers up in the order in which they've signed up. After we've made it through all those who have indicated they wanted to speak, we'll open the floor and give others an opportunity. Maybe their

imagination has been sparked, and they want to talk.

When you make an oral comment, we'd like you to state your name, and if you have one, your affiliation. We're holding everyone to a three-minute limit. I don't know that we have too many commenters that have signed up, but we will keep ourselves to the three-minute limit, and then we may be able to allow people additional time to talk afterwards, after everyone's had a chance.

Again, to reiterate, we'd like you to limit your comment to the scope of a programmatic EIS. We're not asking for comments on individual projects. If you have any written copy of your remarks or other materials, you can hand them off. Anybody wearing a name badge can take the materials.

As I mentioned, we're creating transcripts of these scoping meetings, and the transcripts will be posted on the website at some point following the date of the last

scoping meeting, giving us time to process those.

All right. Now, there's even more ground rules. There's always more ground rules than you think. I'm going to keep a stopwatch, if I can remember how to work it. That will allow me to keep track of your three-minute limit. If you see a yellow card, that means you've got 30 seconds left. And then if you see a red card, it means you're at your three-minute limit. We're going to ask people to come up to this podium.

Our first speaker is Morey Wolfson.

MR. WOLFSON: Hello. I want to thank you for the opportunity to provide some comments to this panel. My name is Morey Wolfson. I'm the Utilities Program Manager at the Governor's Energy Office here in Colorado. I'd like to give you just a quick introduction as to why I'm here and what the governor's interest is in this.

I work for Tom Plant, who was

appointed by the governor to lead the Governor's Energy Office. Mr. Plant works directly for Governor Ritter. The governor is very interested in renewable energy, as many of you understand. We feel that we are at a point in our energy and environmental history that requires us to step forward very quickly, very expeditiously, to move forward to meet the challenges that we face. They're unprecedented, as you all know. I just want to reenforce the importance which I know that you attach to this work.

Working for land agencies and the Department of Energy, you have broad responsibilities to do a lot of balancing of different issues in order to come to decisions. There are values that are attached to your decisions, as well, as there are -- as well as a legal framework. These values I think need to be kept in mind as you go forward with respect to the -- what I would say, the macro trends that we are facing.

Global climate change, for one, is a huge issue which is absolutely over-arching for the consideration for people in the Department of Energy and the Bureau of Land Management to recognize that if we want to seriously address that issue, that renewable energy is by far and away one of the leading candidates to be able to be an effective way to combat global climate change.

The other one is national security. The Department of Energy speaker has already referenced that. We understand that the balance of payments that we face in this country is huge, and it's time for us to develop clean, renewable, domestic resources that are sustainable and are inexhaustible. Solar energy comes straight up as one of the top contenders for that, along with wind power.

The third one is the question of the price hikes that are taking place in the conventional fuels. I checked the price of

natural gas today, and it was over $13. And if we think that it's going to go down, it's delusionary, because it's not going to be going down.

So the confluence of these issues are such that we would like to see massive renewable energy development here in Colorado and in the West. We're especially interested in economic development opportunities that are attendant to solar energy development here in Colorado. We encourage you to look at your jobs within the framework of going over these hurdles as expeditiously as you can, and not have it be said that it was the United States Government that, through its processes, tangled things up to the point where it was just impossible for development to happen.

So if time permits later on, I will be happy to expand on these thoughts. Thank you very much for the opportunity to be here.

MS. SMITH: Thank you.

The next speaker signed up is

Harriet Moyer Aptekar. And I apologize for any names I mispronounce.

MS. APTEKAR: That was perfect.

MS. SMITH: Okay.

MS. APTEKAR: That was very good.

Good evening. My name's Harriet Moyer Aptekar. I represent Ausra, which is a large-scale solar/thermal development company located in Palo Alto, California, for the home office, and we have a regional office here in Colorado.

Ausra has a contract with Pacific Gas & Electric to build a 180-megawatt project in Central California, which we're in the process of permitting now. That project will provide electricity for approximately 120,000 homes. And while that particular project is being sited on private land, we are actively looking at locating projects on public land in California and throughout the Southwest. So this process you're going through is just critical for us.

I thank you very much for holding the hearing and allowing us to participate in providing comments. We really do applaud the fact that BLM and DOE is trying to promote solar energy development on federal lands, and help that to happen efficiently. However, there are several aspects of the Programmatic EIS that cause us some very serious concern.

The first is the idea of freezing all right-of-way applications while this PEIS process goes forward. A 22-month freeze, in addition to the length of time processing a normal EIS application, going through the right-of-way process requires, is just a tremendous burden for industries working in the solar/thermal field.

We're a small industry, and we're really just getting off the ground. Currently, there are only two projects operating in the United States. You heard about them both tonight, the 350-megawatt project in Southern California, which has been

there for years, and the relatively new 64-megawatt project in Nevada. So while you have a lot of us here at the start line pushing to get these projects going, we don't have a lot of projects on the ground yet. And this time delay is really, really critical relative to the industry.

I think I just can't stress that enough. We talked tonight about 130 applications which will have the opportunity to proceed while this process is going on. And we're very, very pleased with that. We believe that those applications need to go forward and need to be processed as efficiently and quickly as possible, so that that -- I think it was called limited development option -- is something that we really are in favor of. Maybe the group could come up with a limited option plus that would give us an opportunity to be submitting some applications while the process goes forward.

I don't know what the card meant,

but I think I have to sit down.

MS. SMITH: Oh, I'm sorry. You've got 30 seconds.

MS. APTEKAR: Oh, okay. The other aspect I wanted to stress is transmission planning and looking at how you can work together with other agencies to create more transmission opportunities. Obviously, where transmission is placed will direct development. So there is no need to limit solar development on public lands. You can guide us very effectively by offering us great transmission options.

Thank you. And I have more to say.

MS. SMITH: Okay. The next speaker that registered is Alex Daue.

MR. DAUE: Daue.

MS. SMITH: Daue.

MR. DAUE: Daue, yes.

MS. SMITH: All right.

MR. DAUE: Hi. My name is Alex Daue, and I work for the Wilderness Society

here in our Denver Office. We work to protect wilderness and inspire Americans to care about our wild places. I'd like to thank you for the opportunity to comment this evening.

I support the BLM's proposal to update its solar energy development program and the DOE's proposal to identify policies to minimize damage and to protect natural and cultural resources for solar projects in which the agency is involved. Solar energy development is a big part of the solution to the challenge of global climate change. Large-scale solar projects can help to support the transition to an energy supply that does not emit greenhouse gasses or contribute to dangerous climate change.

However, if not located and built responsibly, energy projects can also harm wildlife habitat and fragile desert environments and damage national parks and other places valued for their natural beauty or cultural history. So the manner in which

the agencies develop their PEIS will determine whether large-scale solar developments has positive or negative effects for Americans and our public lands.

I do support the development of clean energy so long as it does not sacrifice precious resources. Because utility scale solar development is such an intensive use of the land, precluding nearly all other uses, it is particularly important that the projects be chosen carefully. BLM and DOE must recognize their responsibility to combat climate change and its effects. Areas where solar development is not permitted should be identified in the BLM plans and included in DOE's policies. I commend the BLM for identifying certain exclusionaries already, including all lands within the National Landscape Conservation System and lands the BLM has previously identified in land use plans as environmentally sensitive, including area of critical environmental concern.

In addition, the agencies should come up with a more complete list of important and sensitive lands to be protected, such as national parks, national monuments, state parks, citizen-proposed wilderness, lands with wilderness characteristics, wildlife migration corridors and critical habitats, and areas with known concentrations of cultural resources.

Outside of these exclusionaries identified, there are still many considerations regarding where utility scale solar development is appropriate. These criteria should be included in the agencies' programs and policies to be assessed for all projects.

There are important economic benefits to local communities from siting projects on private lands, which should also be considered as possible alternatives to sites on public lands. These lands could include private land -- thank you.

MS. SMITH: No, that's -- oh, I'm sorry. My apologies.

MR. DAUE: I got the red card. Preemptive red card.

MS. SMITH: I'm adding 20 seconds to his time.

MR. DAUE: Okay. So these lands could include sites that are already environmentally impaired, such as abandoned mine sites, developed transmission corridors, and producing oil and gas fields.

I support the -- I was glad to see that the agencies have already said that they will be applying mitigation measures, such as best management practices. These things could be such as disturbance and harassment of wildlife should be avoided, existing roads should be used, and development should be phased. I think that the measures should be mandatory and apply to every project that BLM receives and DOE supports.

And I also support the full and

complete coordination with other planning efforts, such as the Western Governors Association and the ready process, as well as the Westwide Energy Corridors.

Finally, I do support the time out for all new applications. I think this is very important. This will ensure that the important analysis and input gathered during this PEIS process will be used to maximize benefits and minimize impacts to our public lands.

Thank you.

MS. SMITH: Well, obviously, I need more training on my cards. I'm sorry, Alex.

MR. DAUE: That's okay.

MS. SMITH: The next speaker is Bobby McGill. I'll try to get my cards straight.

MR. McGILL: My name is Bobby McGill, the Communications Manager for the BLM Action Center at the Wilderness Society. I just want to reiterate some of the points that

my colleague just made, and a few others.

In a time of climate change, solar energy is one of the primary forms of alternative energy that will help transform our fossil-fuels-based economy into one eventually based on renewables. With most of the United States' solar energy potential concentrated in the West, using our public lands for solar energy development is not only wise, but necessary, in combination with development on private land.

However, many of our public lands with solar energy potential are also environmentally sensitive and of wilderness quality. The BLM and DOE should consider cultural, wildlife and wilderness resources when establishing policies for the siting of photovoltaic energy production facilities. That includes excluding solar facilities from areas that are part of citizens wilderness proposals, any park lands, and any area included in pending wilderness legislation.

Renewable energy sources, including solar, are vital parts of our energy portfolio in the 21st century. Please thoughtfully facilitate the development of this renewable resource, being ever mindful of the ecological integrity of our public lands, and the need for a transparent public process by which solar energy development policies are created.

Thank you.

MS. SMITH: I didn't even get a chance to prove I could do it right.

The next speaker is Craig Cox.

MR. COX: Thank you. Good evening. My name is Craig Cox. I'm Executive Director of the Interwest Energy Alliance. We represent the largest companies in the wind energy and utility scale solar energy industry in five out of the six states under consideration in this draft PEIS. I think it's great to review and to have standards for development of energy of any kind. And I think it's very important to have the multi-

stakeholder aspect and having comments throughout the West, throughout the affected areas.

But I don't think that while this process is being conducted, that we should stop all new development in the next 18 or so months. I would point out that these next 18 months will be critical months in the implementation of current and new energy policy as a new administration takes office in Washington in just about six months. I don't think we should handicap a new administration right out of the starting block.

I'd also point out that almost every state in the West has a renewable energy standard or goal of some kind. Solar energy is an integral part of these goals. Much of the solar resource in these states is on BLM and federal lands.

As we've discussed in several comments and in presentations already, the Western Governors Association has studied this

issue in depth. All the Western Governors support new renewable development, including solar.

In 2006, there was a Clean and Diversified Energy Task Force that identified how the West could reach 30,000 megawatts of solar by 20- -- of renewables by 2015, and 8,000 megawatts of solar potential were identified, which I believe now, two years later, is a conservative estimate.

Recently, WGA has finished task forces examining energy in wildlife corridors in another multi-stakeholder process. And now, as we've also pointed out, the Western Governors Association has started the Western Renewable Energy Zones Project, which will also identify transmission corridors and renewable resource areas in the Western United States.

So clearly I think that solar and renewable technologies are critical components of our energy future and enjoy strong support

from many sectors, from federal, regional and state policy-makers. I think this process should be -- the PEIS should be considered, but it should not stop near-term development of new resources. We need to make future site-specific environmental reviews more efficient and predictable, I believe, and set forth a clearer process for dealing with these new developments and changes.

And so finally, I would just point out that with all the support that solar and renewable technologies enjoy from these various levels of government and the critical nature of implementing these projects, we need to figure out how to keep moving ahead without stalling everything for just two years or so.

Thank you.

MS. SMITH: The next speaker is Nada Culver.

MS. CULVER: Hi. My name is Nada Culver. I also work with the Wilderness Society in Denver. So we come here and talk a

lot about the solar PEIS.

You've heard a lot already from my colleagues, and it is clear from what we saw, that these projects can radically change the use that we can have of our public lands. I wanted to just take a minute to address the scope of the PEIS as it pertains to the DOE projects. The BLM -- I think we and the BLM are both kind of used to seeing how programmatic EISs proceed and how the NEPA process proceeds. But in the DOE part of this document, we've seen references to an analysis of how the DOE's funded projects will proceed. I think it would be extremely helpful for all of us if the PEIS identified in detail what those types of projects are and what types of impacts they could have.

I understand that they can affect all federal lands, state lands, private lands and tribal lands. That is quite a lot of cumulative impacts. Right now, the BLM has set out planning criteria in this document

that pertain to things like a reasonable, foreseeable development scenario, consideration of climate change, consideration of protecting lands with wilderness characteristics, and consideration of alternatives. These are all extremely helpful things that we don't see enough in many of these documents. But as they pertain to the DOE process, I think we need to see similar analysis in order to really get a handle on the type of impacts that this program could have in a broader sense.

Thanks.

MS. SMITH: Okay. Thank you. That gets us through the list of folks who pre-registered indicating they wanted to make a comment. Is there anybody else present who would like to make a comment that didn't previously sign up? Okay. Go ahead.

MR. NICHOLS: My name's Lonnie Nichols. I'm basically representing myself and San Luis Valley Citizens' Alliance, who is

actively involved with the Oil and Gas Commission, and also with the oil and gas drilling in the San Luis Valley. Thank you for coming and sharing with us.

I wasn't quite prepared, so be patient with me. As far as a specific comment, I've got a couple, and you may have included this in your PEIS. That is to include the EPA, as you do in the current EISs. Now, I'm assuming that the EPA would look at your EISs as they come forth. So that'd be a comment. Okay. I'm getting a nod on that.

Even though this is general and not specific, I would suggest that when you go to a specific area, that you look at the local area, meaning the local economy and the local culture, because as we've already heard, we've heard mostly pros. There's been some comment about the delay of the permits or the process of investigating the areas. But if you look at the specific local economy and the specific

local culture, and also look at the provider -- that's why I asked earlier about the hardware -- who is going to provide the panels, or the type of solar array, the servicing of those -- I would say in the comments to put in there to be specific to that economic and cultural area.

Some people -- for example, some people from out of state may come in and have a great track record in another state. But, say, they might come into Colorado and not have the resources to do a good job. So I'm just saying to look at specific providers for that area.

I also would suggest that we do not hold up the process, because as we're speaking right now, I mean, there's oil and gas permits being issued on a daily basis. If anybody's not aware of it, there's 26,000 active wells in the State of Colorado. To my knowledge, the Colorado Oil and Gas Commission has never declined a permit. So let's not stop this

while they're doing that.

Finally -- excuse me for my chicken scratches here -- if the BLM, for example, or U.S. Fish and Wildlife, or even the U.S. -- let's say the Forest Service, if there's an application for an oil permit, and there's a potential usage for solar, my comment is, put solar as your priority.

Thank you.

MS. SMITH: All right. Anybody else want to come up? I think a couple of people potentially have additional remarks that did have a chance to speak. Are you interested?

MR. WOLFSON: Yes, I am.

MS. SMITH: Okay.

MR. WOLFSON: Thanks for the opportunity to extend my thoughts just a little bit. I won't take more than three or four minutes.

MS. SMITH: Can you reintroduce yourself?

MR. WOLFSON: Yes.

MS. SMITH: Thank you.

MR. WOLFSON: My name is Morey Wolfson. I work for the Governor's Energy Office here in Colorado.

I'd like to describe a few things that are going on which I think that it's presumably these activities are -- you -- you are aware of, and you've already mentioned a few of them that you are coordinating with. But because of my work at the Governor's Energy Office, I'm informed about a variety of activities that are taking place in renewable energy development, and in transmission development in particular.

I'm a member of the Committee on Regional Electrical Power Cooperation, and a member of the Western Governors Association Energy Resource Zone Initiative, I'm on the Executive Committee of the High Plains Express, which wants to bring in major transmission across from Wyoming down through

Colorado, into New Mexico, and over to Arizona, and I'm a member of the Colorado Long-Range Transmission Planning Group.

The reason I mention all of these is not to tout my credentials, but to describe that, as you well know, there's a tremendous amount of activity where there are variety of people who take these macro issues quite seriously that I mentioned before -- national security, global climate change, the need to quickly evolve to a renewable energy economy. These are not issues that we can just kick the can down the road and pretend like it's going to be for a different decade.

People in the energy and environmental communities have known for decades that we need to make these moves towards high voltage transmission lines to hook up our renewable energy resources. But because the economics have not been in place, and because the environmental mandate hasn't really been fully understood, this momentum

has been slowed. But now it's time to speed this up.

I'm not here to suggest that we should be riding roughshod over the attributes that have been referenced before in terms of attention to doing the projects right. But as you know from working within the federal government, it's easier for you to count the problems than to quantify the benefits. It's easy to go into an environmental impact statement world and to be able to talk about the problems right across the board.

But how are you going to quantify the benefits, the environmental benefits of addressing climate change? How are you going to quantify the economic development benefits? How are you going to quantify the national security benefits? How are you going to quantify the innovation and the propulsion of an economy towards an inexhaustible resource? You can talk about number of acres that are disturbed and so forth, and that can be easily

quantified. But the questions I asked you to quantify are not readily quantifiable. And because they are not readily quantifiable, too often it is stipulated that, since it's difficult to quantify the benefits, we're just going to have to get on with our job and just call it zero.

Now, I'm a veteran of public policy for nearly 40 years. I've seen this happen time and time again when, because of the difficulty of quantifying the benefits, they just are skipped over and considered to be zero. I'm asking you to consider, when you do your programmatic environmental impact statement, to expand the horizon and the accountability that you feel as citizens of this country and as managers that it goes beyond just counting the negatives, and that you start to count the benefits.

The last thing I would like to say is that our legislature tasked a group of people to go forward and to quantify the

renewable resources here in Colorado and to look at the transmission pathways that are necessary to bring the renewable resources to the grid. I'd like to leave with you a report that was produced by the Senate Bill 91 Task Force, which was produced on December 27th, 2007. In that report it provides very specific understandings of where the renewable resources are, what the transmission capacity problems are in this state, and it lays out for the public to understand that if we want to seriously step up to the scale of the global climate change problem, then we have to step up with the scale that has at least a fighting chance to be able to be victorious.

Time is not on our side on this. We are not able to just push this off for 10, 20 years, and hope that maybe some different administration, or a different population is going to step up to it. It's our responsibility.

I work for the Climate Action Plan,

which is my guidepost, which is prepared by the Governor of the State of Colorado, that says we want a 20 percent reduction of carbon dioxide by the year 2020. We take that goal to be a serious goal which can be met with renewable energy integration into a new high-voltage transmission system. This can be done. This is not like it's a cold fusion. This can be done. It has been done before to build out the high voltage transmission system. We need to make it happen.

And to repeat what I said earlier, I don't want to think that it was our generation of public servants, that in the furtherance of their job descriptions, they were parties to -- not maybe even consciously, but they were parties to an extension of time into the future to set up so many bureaucratic traps that were impossible to meet that this generation of people could not get their way through the federal bureaucracy.

So I encourage you to take this

advice under consideration and to know that it's not just my governor, and it's just not me that's speaking. I think there's a tremendous amount of people that feel the same way and would like to see you move forward expeditiously in your work. The time frames that I see look -- they concern me. The idea of stopping applications I think is probably predicated on the fact that you may not have the resources to be able to process the applications that are coming in the door. That needs to be addressed in a different kind of way than saying, okay, stop the applications.

So with that, I will -- I don't know if your process allows for dialogue. I presume not, because others want to speak. But I will just pass this out.

MS. SMITH: Thank you, Morey. And you're certainly welcome to talk with the individuals after the meeting.

Harriet, you said you had more.

You wanted to continue with your comments. That's fine.

MS. APTEKAR: I just have two other points.

MS. SMITH: Okay. That's fine. I want everybody to have a chance to get their word in, and we're not that busy tonight.

MS. APTEKAR: I'm Harriet Moyer Aptekar again with Ausra. I had two other quick points. Since you're going through the programmatic EIS process, there are many other federal lands that have solar energy potential, and also need to provide us with some transmission access. So I was just wondering whether it's possible for your process to look at some of the lands administered by other federal agencies, and look at ways that we could move working with those agencies and on those federal lands forward in a more timely fashion. So that was just a request I was going to make.

The last point that I had was, we

understand that this is an important process from your institutional point of view. We're hoping that out of it, maybe there'll be some solutions for how to streamline the future site-specific environmental reviews that we are actually going through. As solar developers, we are really concerned to be good tenants and good stewards of public land. But we also need help moving our projects through the permitting process in a timely fashion. We would really like to see this process result in a way that we can all be satisfied with protecting public lands and getting some of these projects built, because it's really critical.

A last point I'll just share, since I'm working a lot in rural communities, we know what you're up against because there's lots and lots of frustration in the smaller rural areas relative to wanting economic development, feeling like this is their time. And I know it's got to be very tough to be

looked at as the bad guys who aren't going to let this happen for their community. We are happy to work with you in any way to facilitate this process. We're happy to actually also provide resources in terms of some of the planning pieces if that would help expedite things for you.

So please look at the development community as your allies in this, and call on us and let us help in any way that we can.

Thanks so much for your work.

MS. SMITH: Thank you.

Does anybody else want to complete a comment? We have somebody that would like to make a comment. Great.

MS. KIELTY: My name is Diane Kielty. I'm with the Clear Creek Watershed Foundation.

The one topic that seems to have been not overlooked, but just not actually discussed in this particular scope, is smaller scale utility generation distributed projects.

I'd like, as you're considering land use and transmission paths, to consider opportunities for smaller scale distributed projects that would feel an advantage with transmission paths coming through to their areas as well, not just these large-scale projects, doing the same thing we've done in our nation for the past how many decades, going to large coal plants, going to large areas. Consider smaller distributed opportunities to send transmission paths through.

We're working on potential bright fields projects with abandoned mine lands in counties in our upper areas that have great opportunity for renewable energy and distributed smaller projects. So as you are considering this, it complements the Department of Energy's idea of taking their eggs and spreading them around, and not doing these large-scale projects all over again and creating a security disaster. Let's think this through and look at the distributed

projects, as well.

Thank you.

MS. SMITH: Thank you.

Anybody else have a comment they'd like to share?

Well, I'm sure the agency folks will be around for a few minutes after the meeting to talk with individuals. You can certainly make comments online, or send them in by mail, or attend one of our other scoping meetings. We have three more this week in exotic locations -- Phoenix, Salt Lake City and Albuquerque. So you can come with us on the road-trip. Then we have three more meetings in the week of July 8th. But certainly online is an easy method for you to add comments.

Unless anybody else has something from the audience, do you have any closing comments, Linda, or --

MS. RESSEGUIE: (No verbal response.)

MS. SMITH: Okay. Well, I'm sure they heartily thank you for attending tonight. Thank you.

(Meeting adjourned at 7:57 p.m.)