RECENT MARKET ACCEPTANCE ACTIVITIES

January 18, 2012

Coordinator: Welcome and thank you for standing by. At this time all participants will be placed on listen only mode. If you need technical assistance throughout your conference, please press Star 0. Today's conference is being recorded. If you have any objections, please disconnect at this time. Now I would like to introduce your first speaker, the technical director of Wind Powering America Project, Mr. Ian Baring-Gould. You may begin.

Ian Baring-Gould: Hello everybody. Happy New Year and thanks for joining us at another one of our monthly WPA Webinar series. This session proves to be very exciting. Just want to give a little bit of background. About two years ago, the Department of Energy funded a number of solicitations to look at both market development activities in the wind space and then also workforce development.

And out of that solicitation, they awarded over 24 grants to different organizations who were looking at kind of issues around market acceptance. And we're lucky today to get reports from three of those grant recipients looking at different aspects of market acceptance.

You'll see it at the end of the presentation, but next month we're going to be getting presentations from three of the awardees from the workforce development grants. But to get to today's speakers, we've got three very intelligent individuals who have done a great deal of work looking at how do you employ wind and in different market areas, starting from kind of a national perspective with Patrick Field, looking at planning from the governmental sector with (Suzanne).

And then (Simon) is going to talk to us about developments in the Southeast and funding that they had to work on wind working groups in the kind of Southern Appalachian region.

So without further ado, would like to introduce Patrick. So one last point, we do - we are doing questions and answers at the end of each of the sessions which is a little bit different then what we do typically, and that's because the different presentations are fairly different. So, again, we're going to be doing Q&A at the end of each talk.

To ask a question, as usual, click on the little Q&A up in the menu bar at the top of your screen and there you will get a chance to type in your question and then at the end of each of our speaker's discussions, I'll be posing questions to them.

So to start off, we have Patrick Field who is currently the managing director at the (Consensus) Building Institute. He's also the associate director of the MIT Harvard public disputes program and a senior fellow at the University of Montana Center for National Resources and Policy.

Patrick has tons of experience looking at stakeholder agreement and working with stakeholders to understand the issues around land use development, energy, national resources, has worked extensively across the United States and Canada in a variety of energy and other fields.

Specifically in the wind space, he's worked with the town and village of Manchester, Vermont looking at the development of a public engagement process for the (Mount Equinox) projects. He is a co-investigator on a project looking at landscape values and wind sighting in the Midwest.

He worked in the development of a workshop that he'll be speaking about today that brought together lots of stakeholders looking at collaborative development of wind facilities sightings.

He's worked with the National Park Service, the Forest Service and about 400,000 other organizations. And then lastly, he is also a co-author of an award winning book, "Dealing with an Angry Public," which is certainly something that we get in the wind space. So very excited to hear about Patrick's work in the wind space. Patrick.

Patrick Field: Great. Thanks very, very much and good afternoon everybody. Let me try to in about ten minutes describe the course development and course that we put on with the good and kind support of DOE. And because I have a Mac, I'm going to have to ask my fair helper to kind of move the slides forward as we go. So we'll go to Slide 1.

So the original intent when we applied for the grant and received it was to do really a course on - we wrestled with the title but kind of facilitating wind energy sighting or collaborative wind energy sighting or the like, to really get at and understand, one, some of the particular dilemmas around wind sighting, not so much on the technology side, but on the community acceptance side.

And ultimately we kind of settled on the title, "Facilitating Wind Energy," and though we intended originally thinking our audience was primarily state officials across the country, with the, you know, the budget crisis that he had, it was pretty apparent that even though the course was not going to cost him anything to attend, that travel there was prohibitive.

So our audience primarily ended up being, I would say, the East Coast to the Northeast, which in some ways was helpful because it did focus on a

particular kind of sighting challenges and communities that people faced versus, say, the Midwest which maybe have different kinds of issues.

We did this course in partnership with a colleague, Jonathan (Rabb) Associates, and with Larry Suskind, one of the lead folks here on the project both here at CBI and at MIT. Next slide.

So as we thought about designing the course we certainly had brought some experience and some thoughts about sighting generally, energy sighting facilities more specifically and wind sighting even more particular.

But we really wanted to understand what people were facing out there, what people thought some of their best advice was about how this should be done in a best practice way.

So we interviewed a range of leaders, both from industry and government and elsewhere to talk about what were some of the challenges and opportunities for wind energy sighting. We developed a number of case studies ourselves and through graduate students at MIT to really kind of understand some of the particular kind of case studies that were happening and sort of successes and not so good successes.

And in that research we really identified kind of five problems that we built the course around. And one is the engagement problem, which is to say to really get to people early and often and find a way to not treat wind sighting primarily as a political or technical exercise but in the sense also as a community exercise.

We obviously as many of you know, visual impacts are one of the drivers of potential community opposition, so we really wanted to look at that, some of

the drivers behind that, some of the tools, potentially to help stakeholders through those kinds of challenges.

Third, we looked at the noise problem, kind of I think an emerging issue in the last few years, in particular associated with sort of perception and/or reality and health effects, concerns of health effects.

Both of those things are partly tied to a question around when we have a controversy around a sighting, do we at least share the same facts around wildlife impacts or noise impacts or property value impacts. And so we really wanted to talk about what we've learned about what we call joint fact finding.

And lastly, we really wanted to talk about the challenge that certainly comes up in some sighting, which is where does the money flow? Who gets it? And what do we get the community in terms of financial benefit for these kinds of projects?

So we built the course really around those five kinds of challenges or problems. And the course involved a variety of short lectures, lots of examples, case studies, vignettes, actual negotiation exercises and simulations and a number of panels with people with a variety of experiences to both share their experiences and engage the audience as well, and I'll get to in a minute who participated.

But I think the greatest value is having a really rich mix of people in the room, interacting and not so much us training but us interacting together and talking about the challenges of these five problems.

And we drew from kind of years of stakeholder engagement and consensus building theory, the casework and all those things as well. Next slide about

who participated. We, again, even though we'd started to focus on state government, as we began to reach out and do marketing it really became clear we wanted to have a broader audience both practically and also financially.

We were going to have to draw more from the Northeast and East. We recruited a variety of folks who were very helpful to us to sort of share their list serves, and we did receive about 200 - we treated it as an application process because we could only hold so many people and essentially it was, in fact, the participation was funded by DOE.

We got 260 applications. We selected about 100 seeking sectoral balance, geographic balance and some kind of experience with wind sighting so we had, you know, more people who had some kind of stake in the issues so they kind of be there to wrestle with the harder problems.

And as you can see, we had about 16 different states from those different organizations of some sort represented in the training. Next slide about who participated, you can see the mix we felt was pretty good. We had a lot of community groups and NGOs, a number of wind developers and often consultants who go with them, a number of state agency folks.

And we were delighted to have a number of local governments who either by themselves are thinking about community wind development or more broadly facing sort of a wind development proposal who were very active and I think delighted to be there and some key federal agencies as well.

Next slide. We, just for what it's worth, we did do an evaluation of the training and we are certainly happy to share all the details, but generally I think people were very satisfied with the training and again, I think the interactivity focusing on the real problems out there that our people are facing

and really looking at, you know, kind of interacting with each other in a number of different ways to wrestle with these problems was what people found most valuable.

I would say from the course, we did identify some broad lessons learned. I think there're a lot of nuances to these things. I think there are many challenges with community concerns, particularly I think around either kind of values based disputes we might call around what should happen with my landscape, and my landscape is, of course, a provocative word intended to be so.

You know, how you handle health effects or concerns about health effects, and noise, property values and the (unintelligible). These are all real challenges and problems and continue to find ways to wrestle and think about how to do those.

Our general premise in the course was that a - as engaged and collaborative a way as possible to move forward was important, so we stressed around engaging the community early, engaging stakeholders early and many of them, to the extent that the community and public can have some say in some part of the project in the sense of - and I know this is going to be challenging financially and otherwise but, you know, sighting ideally but that's often a regional to state level kind of process if you even have that, to how many turbines to at least height or perhaps orientation or sort how they're organized on the landscape or other kinds of benefits that might flow from the project.

The more there are things that are negotiable, the more likely the community can engage you and the more it feels like a done deal, obviously the more challenging it is I think for developers to move things forward at least in some places.

And we also then emphasize through joint fact finding other techniques, that there're a number of collaborative ways to try to engage people, even your critics in potentially moving forward.

And the advocates who participate in the training I think there are a number of people who talked a fair amount about feeling frustrated that they often did not - they felt a lack of control. Some states, as you know, sighting is primarily done by an interstate energy board and so that particularly felt disempowering to some communities.

Other communities who have maybe more local say or control or permitting influence over these sites, still felt a concern between themselves disconnected from their local governments and so how people can engage in a different and better way.

And the advocates we had participate, many were not just anti-wind or not necessarily just pro-wind. Some certain skeptics, but wanted to figure out a way to engage people and do things as best they could.

So we did identify some kind of key lessons that I'm not going to go through here but I did want to list them in the slides, some kind of key things about what not to do in terms of wind siding.

And also I think some kind of key things about what to do in terms of trying to think about best practice before what we'd call collaborative wind siding to the extent that is possible.

One of the challenges, of course, I that people wrestled with in the course was the, you know, when there's a very vocal and very small opposition to a

project and how to make sure at least the media and others are discussing the full range of use in the community.

And I think one of the hard challenges of wind sighting that we certainly wrestled with in the course and with people was this notion that a very few people can get - have a very loud amplifier particularly to the media and can often kind of set the debate when there are a large majority of other people who actually have a different view but are not willing to kind of be in front of that intense conflict and wrestle with that.

I think we also heard from many advocates that the issue and concern that if we were approached in the right way with the right process, with the right information, we are certainly going to consider and work with people, but when process goes bad, opposition quickly follows.

One interesting problem we faced was that there was an advocate who, unbeknownst to us, and probably our fault for not setting better ground rules, actually recorded pretty much the whole thing via probably an iPhone or such device and posted it on a Web site which we were deeply concerned about because we thought the real value of this was people interacting, asking good questions and having a safer forum to have some really rich discussion with each other without kind of the inhibitancy of public process and/or specific project.

Fortunately that advocate worked closely with us to leave some stuff up when we were speaking as trainers, which we were fine with being public, but the Q&A really taking that off the Web site and allowing that to be sort of different space for people who've had an informal interaction.

So one important lesson for us, which I suppose we should've known better, is some very clear ground rules about what's kind of public information, quote, unquote, and what's off the record or a different kind of conversation, very important to set in these trainings that aren't really trainings but they're chances for people to interact, build relationships, increasing understanding and explore new ideas.

So as a follow on, we've certainly done some revisions to the materials, reached out to some other people and are considering how we might offer a version of this course, perhaps a little bit shorter then the three days, where it is appropriate and used for people to think about these particular kinds of challenges.

So with that, Ian, that's my kind of short presentation. I wanted to keep it to about ten minutes and happy to take a few questions.

Ian Baring-Gould: We don't have questions at this point, though if people - oh, wait, a question from (Steve Frown). Were DOE and FAA involved in your course?

Patrick Field: You know, I'd have to go back - DOE, there was some involvement. FAA, I can't remember whether they actually attended this particular course or not. I'd have to go back and check.

Ian Baring-Gould: So, okay. So did issues related to radar and stuff like that, make it in?

Patrick Field: Not in regard to the question of whether sort of, you know, a - sort of flight pattern problems with the Federal Aviation Administration or other issues.

Ian Baring-Gould: Yes, exactly.

Patrick Field: This course did not particularly cover that issue but certainly a bone of contention in some cases.

Ian Baring-Gould: Okay. Another question, you talk a lot about the issues of local empowerment as being one of the kind of key focuses around the discussion. What key issues in regards to local empowerment kind of came out as recommendations from the workshop?

Patrick Field: Oh, I think that's good and maybe what I'll do is just go back briefly to a few of the lessons. I think...

Ian Baring-Gould: Which slide would that be on?

Patrick Field: If I look at Slide 10, if you can see the number on it, which is lessons learned, what to do.

Ian Baring-Gould: Yes.

Patrick Field: A lot of people I think, and many developers in the course as well said, you know, one thing we've learned is it's better to get to people early and ongoing communication and make it broadcast. Eventually people are going to know they're obviously sort of purchases of property and sighting and competitive issues I won't have to deal with but better early and often and no surprises is a very important rule to the extent that you can do it, was I think a key piece.

I think people really recognized the value of vetting any number of concerns however nutty they may seem or how legitimate they may seem as letting kind of the range of issues and concerns get out there and finding different forums and ways to air them and try to address them.

The challenge is, obviously just the developers addressing them, however honest and accurate and faithful they may be to try to get it right because they're a developer, they're going to have a perception bias and so we talked about ways in which, you know, local governments, academics and other institutions might provide kind of additional expertise to kind of fact check so to speak various kinds of positions or issues as well.

And so that's kind of the idea of joint fact finding. And clearly this is not always the issue because we certainly talked about the case on Fox Island where there was significant economic community benefit, actually strong community support and nonetheless some serious minority opposition to that project.

But we did talk a lot about the idea of the ways in which you can think about managing community benefits packages within the financing of and kind of economics of the project so that local people feeling some degree of impact are also receiving some kind of reward or incentive.

And that's not just the individual land owners but, you know, abutters and the larger community as well. So we also talked about that as well. And I think the other thing that really is less a little bit obvious in this but came out of the course and other work we're doing is twofold.

One is that, you know, as one thinks about wind development in one's community, one has to look very closely around what's happening in wind development in their other surrounding towns or cities and regions and one bad project can really set a very difficult tone for all other projects and communities as things go forward, and one successful project doesn't seem to set the same kind of tone the one negative project can.

And I think some work that we're just exploring and getting data back on with the landscape values work that we're doing with (Repaula Podkey) at McAllister College is that communities that have a slight openness or predisposition toward wind are likely to probably in our view be more open, that more information and more engagement will actually perhaps help them accept, if not embrace certain kinds of wind projects.

And communities that are heading towards the skeptical or uncertain for whatever reasons, more information they actually do the opposite. It may further reinforce their view that this thing, this kind of project should not happen. And that's what we call kind of perception bias and we can talk more about that at a different time.

But I think we're also learning there're, you know, some significant challenges to kind of pre-perceptions about wind and landscape development and what your region is and a development comes into that context and depending on that context can find it easier or much, much more difficult to develop.

Ian Baring-Gould: Great. Thank you. Another question from (Dan Turner). What outcomes did you measure along with those that you looked at after the course?

Patrick Field: So we primarily sort of measured, you know, how did people find the overall content, the overall material and various kinds of pieces of the training. We - what we didn't do, which would be a reasonable question, was to measure to what extent people took this information, went back and actually used it in some fashion other then the self-reporting we received about, great, I took it home and I did a few things.

So we have some kind of qualitative data but we didn't try to evaluate kind of say, you know, three, six month impact in terms of practice on the ground which would certainly be a limitation of what we did.

Ian Baring-Gould: Great. And then one last question before we let you go because I know you have another meeting to run off to - is there a good location where people could go, a Web site or something of that nature, to get more information about your organization or the work that you're doing in the wind space?

Patrick Field: Sure. Let me give you our general Web site and then I actually will send to you all, the organizers that if I actually give you the sub URL that has all the course information on it, but our Web site is - it's not www, it's just plain cbuilding - C, the letter, building, the word, dot org, and that's our general homepage and I will find for you - I believe it's wind energy sighting is the backslash - wind energy sighting is the sub URL but I'll send that back to you all just to confirm that.

Ian Baring-Gould: Okay, and then we can put that up on the wind site as a link, so...

Patrick Field: And all the course materials and everything are on that sub site.

Ian Baring-Gould: That's fabulous. Great. So thank you Pat, for your assistance and presentation here and I'm sure people will be contacting you.

Patrick Field: Great. Thank you very much. Appreciate it.

Ian Baring-Gould: Thank you. Our next speaker is Suzanne Rynne and she is a research associate and manager of the American Planning Association Green Communities Research Center. And so she works for the American Planning Association and does a lot of projects for APA. But the one that she's going to address

right now is the development of a document where she co-authored and co-edited looking at planning for wind energy as part of her roles at APA.

She's also been a project manager for a number of other reports that come out of - they're called planning advisory service reports, but she has done a number of those in a number of different spaces. She's also a co-editor of the (Pass) Memo, which is a bimonthly electronic publication that subscribers to APA planning advisory service get.

Before joining with APA, she was a community planner and a project manager in a consulting firm out in California and she has done a lot of work in environmental planning and - for public and private sector. So without further ado, Suzanne, could you tell us about the planning for wind energy document that you helped develop?

Suzanne Rynne: Yes, thank you Ian. So the American Planning Association, for those of you who may not be familiar with us, we're a non-profit research education organization that serves community partners across the country.

In this research project was conducted under our National Funders for Planning, specifically the green community's research center. And we do a lot of research work here at APA working in house but also collaborating with other organizations.

So as Ian mentioned, the first part of the (20%) wind by 2030 funding opportunity and we collaborated with a number of partners on this effort, including the National Renewable Energy Laboratory, the American Wind Energy Association and (Clarion Associates) to really build and compliment each other's strengths in different areas of expertise.

So why was APA interested in this funding opportunity and interested in doing a report on wind energy? We have something, as Ian mentioned in my introduction, called the Planning Advisory Service at APA where a number of subscribers will ask questions on a variety of topics related to planning and related to communities, anything from parking to transportation to signage.

And in the past few year's we've noticed that there have been a growing number of inquiries on wind energy and it's actually been in the top several few inquires as we kind of looked back at the past several years where people had been asking about.

So this came about at a time when the (unintelligible) was announced, and we thought this was a great opportunity to do some focused work on this as part of this effort but also to be able to provide information to our members.

So the process in terms of how we initiated this and put this report together involved gathering a lot of feedback from our members, from the general public, from experts in the field, to really understand what at the issues out there, what are planners dealing with, what is the role of planners in order to really understand everything that we needed to cover in this report and to scope out specific contents of the report.

So this included a facilitated discussion at our national conference in 2010 where we just had an open discussion with a number of people who came and shared their experiences and let us know that they're looking for. And we also launched an online survey to understand what people's challenges and successes were, and again, to find out what information they needed, if they already had addressed wind energy in their plans and ordinances, what standards had they enacted.

We then held a (scoping) symposium with several invited experts to, again, give us some really, you know, more detailed information on the issues and to help us better understand what we needed to cover in the report.

And at the end of the two day symposium, we had a working outline to report that we then moved forward with. Throughout this process we also did a lot of research on case studies and we have 20 cases studies that wound up being featured in the report.

We consulted a number of technical experts in the field throughout the process to make sure that we were selecting the right case studies, to make sure we really understood the issues, and then even when we had the report together, it went through a comprehensive review process with all project partners and with outside experts again.

So some highlights from the survey findings. The first category that we asked people about was their attitude and experience with wind. Just a couple of the findings to highlight - over (four-fifths of respondents) who put a positive attitude toward wind energy, and in terms of experience, over two-thirds reported that they had worked with small scale wind and just under half had worked with utility scale wind.

Current practice was another category that we asked about on the survey. Some of the common (ordinance provisions) that people had already included were (self act) requirements, tight limits (low) thresholds. One of the other things that we found was the community definition of small wind really varied from place to place.

Successes and challenges was the third category we asked about in this survey. In terms of successes, people told us about having a good ordinance in place and then also public education outreach process was important to success.

And some of the top challenges that were identified included scenic and aesthetic concerns, noise, height restrictions, wildlife and property values, public concern and lack of information.

So the final category we asked about in the survey was what do people need, what should we cover in the report, what should we try to gather more information on. They told us that they were looking for more information on small wind, managing public concerns, potential impact and just some more technical information.

They also told us specifically that they're looking for model and sample ordinances and case studies. So as I mentioned, at the end of the scoping symposium, we had a working outline that we moved forward with for the report.

And some of what actually appears in the report was some minor modifications in terms of just rearranging things for general flow, reducing duplication and things like that. So in terms on content, we wanted to cover some basic information on wind energy for our audience who might not be familiar with some of the technical information about the industry, some of the general information about the benefits of wind.

And we started with that and just some general introductory information but then really got more into the planning process. And how can planners integrate wind energy in the (planning) process? Where are the opportunities?

If they're going to a community visioning process, what questions can they ask?

If they're doing a comprehensive plan update, what policies can they think about including? If they're updating their zoning ordinance, what are appropriate standards? So really looking at those more nuts and bolts things that our audience tends to deal with, and then looking a separate chapters on small scale systems and utility scale systems.

We put together some checklists for typical standards that appear in ordinance and provide some more detailed information in terms of if someone's actually updating their ordinance, what kinds of provisions should they be looking at and what kind of information do they need to know?

And then the final chapter, as I mentioned, we do have a number of case studies throughout the report. And several chapters sort of integrate what are the major overall lessons that we learned from doing all that case study research?

So just to highlight some lessons learned today. One of the things that we found is that for small wind, communities tend to enact ordinance with very specific standards to allow small wind, whereas with utility scale wind, communities tend to allow that through a special use process with less specific standards in the ordinance to allow some flexibility in working with developers to come up with a project that best meets the needs of the community.

Another lesson that we learned was that communities told us they found it was better to be proactive and to address wind in their plans and enact the appropriate standards up front before there is a proposal for a project in their

community rather then being caught of guard and having to put everything on hold and trying to figure out what to do.

The same thing was true for small wind. Sometimes zoning ordinances can unintentionally be a barrier for small wind if there are height restrictions or things like that that would limit the use of small wind in communities and sometimes communities are concerned if wind is not even mentioned in their ordinance. Is it allowed? Is it not allowed?

So what we found is that it's better to be proactive even if there hasn't been a lot of interest in your community in wind to the point to start thinking about it now, put the appropriate standards in place and that way when the proposal comes forward, you'll be ready.

Another lesson learned which builds on the previous presentation that we just heard was to allow the communities to hear and address public concern and that this was a good opportunity especially in large wind projects to be able to make minor adjustments and to address what you're hearing from your community members.

Again, partnerships, communication and collaboration are important. Working with other departments within your local government, working with other agencies and really making sure that this is a project that's going to work for everyone.

And I think a final lesson to highlight in these three publications today is just that communities did see wind energy as being very beneficial to their local economies and really seeing it as a beneficial use and something that was very complimentary to other uses in their community especially in agricultural districts.

So we did see some communities that were highlighted in the report, a lot of positive attitudes about the projects. So for more information, we do have a project Web page where you can access the report. You can read the survey findings and also we have a link to lots of sample and model ordinances.

You can find ones that are maybe in your region from other communities, some other (viewers) and take a look and see if there's something that you can sort of take a look at and build on for your own community. So with that, I'm happy to take any questions.

Ian Baring-Gould: Great. Thank you Suzanne. We have one question and so, again, folks who have questions, please hit the Q&A in the menu bar at the top of your screen and then you can type in your question down at the bottom in the new box that pops up.

But the first question from (Raj J), does this also address how to go about planning to set up a wind farm?

Suzanne Rynne: Yes, so the primary audience for the report is communities and planners working for communities across the country but there's a lot of information there about working with developers, the wind development process, so most of the content is written with the planning audience in mind but it has a lot of information in terms of what the typical process is for creating a wind farm and things like that.

Ian Baring-Gould: Great. Is there any other kind of follow on work that you're planning on doing now that you have the document published?

Suzanne Rynne: Yes, we're updating some of our related resources like the resource list. There is also something, probably essential info packet created through the planning advisory service that's again a number of resources on sample model ordinances, communities that have incorporated wind energy in their plans.

So that's another resource that we just recently published. We're getting a number of workshops and educational trainings like this to get the word out about the report.

Ian Baring-Gould: Great. Is the issues that some people have brought up - another question from (Mark Stimpson) - addressing infrasound and the issues that some people have raised around wind and infrasound. Is that included in your report or did you run into issues with that?

Suzanne Rynne: No, and I don't know if the question asker can elaborate on that at all.

Ian Baring-Gould: Well, it's an issue that is brought up by some people about very low frequency noise and the impacts on people due to very low frequency noise of wind turbines.

Suzanne Rynne: Yes, there is information on that in the chapter on addressing concerns and that was a chapter that was spearheaded by ENRL, so there is some good information on that in I believe it's Chapter 3.

Ian Baring-Gould: Okay great. Another question from (Mark Richenson). How is the best way to get a local governing entity involved where there is no zoning or permitting process in place?

Suzanne Rynne: Yes, there's at least one case study in the report that talks about that where there wasn't zoning in place. So I think looking at that case study and some of

the other case studies is helpful. There're also some general lessons learned about having this conversation and speaking with appropriate stakeholders and things like that.

So I think there are other lessons learned in there even for those places where the planning and zoning is maybe not as far along as other places.

Ian Baring-Gould: Great. And then one final question from (Brian Connors). Will APA update the document as new R&D case studies, model ordinance and things like that become available?

Suzanne Rynne: We'd love to. It really depends on resources available and funding and things like that. There're certainly some things, like the resources that we try to keep up to date more then the funding advisory service report as part of a series, so there're a lot of factors that go into play in terms of the reports and how frequently those are updated, but certainly from the other resources and things like that, we try to keep update more frequently.

Ian Baring-Gould: Great. And a quick note here from (Tom Stanton) that I missed and thank him for reminding us. There're actually two interesting reports that have come out for infrasound. One just yesterday released from the State of Massachusetts which has a scientific board that looked at the infrasound issues.

There's another one that was released recently by the author is (Hessler) and we'll be providing information about both of those reports in the newsletter. So there's lots of new work being done in this infrasound area. And then NRRI is also doing a teleseminar on the 25th about this topic and will cover some of this topic, so two other things.

And that was all of the questions that we had for you Suzanne. So thank you so much for your assistance. If - Suzanne, are you planning on hanging out for the rest of the presentations?

Suzanne Rynne: Yes, I can.

Ian Baring-Gould: Okay great, so if anybody has any additional questions, please type those in and we can come back to those at the very end.

So now without further ado, we'll go on to our last speaker. And this is Simon Mahan and Simon is with the Southern Alliance for Clean Energy which he joined in September of (21) and in that position he is responsible for looking at (faces), promotion of clean energy technologies primarily focused in the Southeastern portions of the United States where they're focusing a lot of land based and offshore technologies and then supporting the Regional Wind Energy Institute.

He has also done a fair amount of advocacy work in offshore development in this region and part of that was in a previous position with (Ociana) where he was an advocate and energy analyst working out of Washington, DC, looking at economics and manufacturing opportunities specifically around offshore wind development.

He earned a BS in political science from Missouri State University with also concentrations in biology and communications. And so anyone who has done with in the Southeastern part of the United States certainly knows of Simon's work.

One of the reasons that we wanted Simon to come in and talk was because the wind power conference is being held in Georgia this year, the first time that

the wind market has really opened up into the Southeastern part of the United States.

And so Simon is going to talk about the kind of public acceptance efforts in the Southeast, so Simon.

Simon Mahan: Thank you. Like Ian said, I'm Simon Mahan. I'm the renewable energy manager for the Southern Alliance for Clean Energy. Just a little bit about SACE, we're focused on promoting clean and responsible energy development in the Southeast.

We're a very active coordinator and promoter of the wind working groups in Kentucky and Georgia. We work in North Carolina and South Carolina and we're definitely focusing as a regional footprint on what wind energy can do for the Southeast.

So just a little overview of what I'm going to talk about today, first I'm going to talk about the Southeast's role in the Department of Energy's 20% by 2030 wind energy report. Then I'll mention the barriers that are kind of unique to us here in the Southeast.

I'll also touch on current events with regard to wind energy and then I'll dive into the regional activities that SACE is working on. So this is kind of what our role is with the 20% report. The map on the right kind of indicates what the DOE thinks the Southeast, in their scenario, what we could provide in terms of wind energy deployment by 2030.

You can see North Carolina is fairly large with the potential of something like over 10 gigawatts of wind. We anticipate a significant portion of that to be offshore with some onshore developments for the rest of these Southeastern

states, but definitely offshore wind developments for Virginia and North Carolina, South Carolina, Georgia and potentially in the future for Florida as well.

The map on the left is from our friends at American Wind Energy Association indicating that even though we don't have much utility scale wind developed here in the Southeast, we do have a fair amount of manufacturing and the wind energy supply chain existing that has already set up shop.

So the good clean energy green jobs, so to speak, are already coming to us here in the Southeast and helping the wind industry domestically and internationally.

So some of the barriers that we're facing here in the Southeast, first and foremost, I think is outmoded information. The long held belief is that the Southeast does not have good enough wind energy resources to really take a significant look at.

And so what that does is it causes developers to kind of wipe us off the map and not really pay that close attention to the new technologies sect and harness lower wind speed areas that we have down here in the Southeast and particularly newer developments with those technologies and actual wind energy development has helped with that. It's just a matter of getting people to revisit the southeast with new resource assessment maps that have been coming out here recently.

Technology used to be a barrier but it is quickly becoming much better for developing the low wind speed areas, that we have, higher hub heights, longer rotors, those sorts of general technologies really help us out down here.

A major stepping hurdle here is definitely the cost of electricity down here. As most folks know, our electricity is very, very cheap relative to the rest of the country and so it's difficult for a utility to look at a brand new wind farm in their backyard versus, say, a brand new natural gas power plant.

And so costs are a barrier that we pay close attention to. Another barrier is the lack of benefiting policies for renewable development. North Carolina is the only state in the Southeast that has a renewable portfolio standard. It's about 12% so it's quite a bit lower then some of the other states that have much higher RPS policies.

And then the final concern and barrier I think and everybody's kind of experiencing this more and more, is just the sites that concerns wildlife and (affects) that the previous speakers touched on.

So just to go to show that there are things going on here, we do have an existing wind farm. It's in Tennessee. It's a total of 29 megawatts. That is our only existing project within the region. However, there are quite a few power purchase agreements that have been signed and some are delivering to bring out of region wind to the Tennessee Valley Authority.

They have about 1500 megawatts of wind coming from the upper Midwest and Alabama Power recently signed a power purchase agreement for 202 megawatts of electricity I think coming out of Oklahoma.

Next there're definitely some proposed projects that we're very excited and interested in. In North Carolina, there's about 1100 megawatts of onshore coastal projects and that number has just skyrocketed in the past year or so.

South Carolina, (Sandy Cooper) is looking at about an 80 megawatt offshore wind demonstration project. Kentucky does have interest from the developer for a potential 100 megawatt wind farm. And there is a proposed project down in Florida for about 150 megawatts. But kind of the (behemoths) that we're looking at and really excited about are these HVDC transmission lines that are being planned to bring the cheap wind energy from the Midwest to our neck of the woods.

Clean Line Energy based out of Houston is looking to connect about 7 gigawatts of Midwest coming into the Southeast and Pattern Energy is looking to connect Texas Wind over into Mississippi for about 3 gigawatts. So we do have quite a bit of activity going on here in the Southeast now.

So these are kind of the activities that SACE has been operating under with assistance from the Department of Energy. The first one here is our Regional Wind Energy Institute which I helped manage this past year. Initially it was a Department of Energy funded operation and then the previous year it was funded by the Appalachian Regional Commission.

We have public events to encourage public information and stakeholder engagement throughout the Southern Appalachia and we posted Webinars and we've developed blogs and actually with the Tennessee and Kentucky wind working group focusing on the benefits of wind energy in our region here.

And through that effort, we had over 500 people touched by our activities. Another initiative that we've been working through is the Tennessee and Kentucky wind working group and with this wind working group it focused on the resources between the two states to share the knowledge of mountain wind and the issues facing both Tennessee and Kentucky.

With it we had a technical assistance project request for a wind assessment to get a better understanding of the true wind resource for the couple states on the (anamometer loan) programs. We published a small wind primer which is now available online.

There's a county commissioner's primer and public workshops and Webinars have also been honed through this wind working group. Now with Georgia and South Carolina, SACE has been working independently in the two states by trying to bridge these two states as they do face similar barriers and some similar resources especially in the offshore realm.

But for the Georgia wind working group, there are about 90 members of companies and agencies and universities involved. They developed a model ordinance and local resolutions to support wind energy.

They've been posting public forums and community leader meetings and they're really focusing on the supply chain and manufacturing of wind energy components and are very active in promoting the wind power 2012 even that Ian mentioned that I'll mention again here at the end of my presentation.

And then in South Carolina there's not an official wind working group just yet. The stage is being set for creating a wind working group. They, too, have been holding public forum meetings with the public but also meeting with government officials and they too are also (providing) research and development and manufacturing there in the state.

Clemson University advanced (dry training) for the test facility there on the coast is one of the things that we're very, very excited about as it highlights our region as a go-to area for offshore wind energy testing and development.

So kind of going forward, our next moves, we have received some foundation funding to continue our work on wind throughout the region. We're continuing our outreach for research and development and having much more of a regional focus on how we can help these - bring wind energy to our region.

We're continuing public forums. They do - will be having a little bit more of an advocacy focus where we're focused on actually pushing cities to pass resolutions in North Carolina, South Carolina and Georgia that promote offshore wind.

And then at the federal level, we're very keenly aware that the onshore wind industry is facing a big hurdle with the expiration on the production tax credit. And also looking at legislation dealing with the investment tax credit for offshore wind.

So we are continuing collaboration through our efforts going forward. And part of that collaboration are a couple of events that we have coming up. The first one is March 8th and 9th in Charlotte. It's the Southeastern Coastal Wind Conference that should prove to be very interesting.

It's focused on coastal, which means coastal onshore and offshore wind for Virginia, North Carolina, South Carolina and Georgia and kind of focusing on what benefits our region has to bring the developers here and also bring the manufacturers here.

But also Wind Power 2012, the American Wind Energy Association's big trade event that they host every year. We're very excited to be having and hosting them in our backyard in Atlanta and very, very excited to be an organizing partner with them on that conference. We strongly encourage

everyone to definitely see if they can attend these events and strongly encourage you to do so if you can.

And that's pretty much it. If you have any interest in what's going on in the Southeast on how you may be able to help, please feel free to get in touch with me. Definitely check out our Web site and our blog. We do blog quite a lot and it's a really good resource for folks wanting to get caught up on what's happening in the Southeast.

Ian Baring-Gould: Great. Thank you so much Simon. A couple of quick questions from (Joan Bondroff). Since electricity is currently cheaper in the Southeast, how are you dealing with the cost issues of wind? And then a little follow up on that, have you looked at the cost spectrum for how wind does compete even at the lower cost energies that we see in the Southeast?

Simon Mahan: Sure, there're a couple ways that we're talking about this and looking at it. One way is highlighting very well with the recent Alabama power purchase agreement that they signed for 202 megawatts of wind.

Wind out in the Midwest and out in the Plains is so very, very cheap now that it competes very favorably in our region as is, and so for us, at this point, it's just a matter of pointing out the obvious that it's not as expensive as what you actually think it is.

And then the second portion of the strategy and how we're looking at things is there're quite a few of really old power plants down here in the Southeast that are being retired, either this year and in the coming years. And the utilities are having to take a real hard look on what type of generation sources are they going to be planning for to use for the next 20 or 30 years?

And when compared to a brand new coal plant or a brand new nuclear plant, wind energy is already cheaper. The only thing that kind of keeps wind back is this potential for additional natural gas generation in our neck of the woods but there's enough interest in diversifying the existing generation portfolio that when these large coal or nuclear plants start going offline, just because they've reached the end of their lifetime or because environmental compliance regulations are cost prohibitive, utilities are seriously taking a look at the cost, the existing cost of wind energy.

And we think that's a really great thing but definitely with Clean Line and the Pattern Energy transmission lines designed to connect us better with a really fantastic and cheap resource out in the plains, I think that's going to be a very good development for us here in the Southeast.

Ian Baring-Gould: Great. Thank you. Another question from (Mark Burlack), I believe. Are the wind working groups of the Southwest actively trying to influence development in policies such as RPSs that promote installed megawatts within their states? Could you...

Simon Mahan: To my - yes, to my knowledge, no. I - they are allowed a certain extent of deference to talk about what policies do work and which policies do promote wind energy development. But they're not lobbying organizations and so they're not out there on the state capital steps, you know, banging on the doors of legislators asking for an RPS or, you know, (feed Antara) for any type of tax credit or anything like that.

Ian Baring-Gould: And why do you think that there aren't very many RPSs in Southern states?

Simon Mahan: Well, that's a whole different conversation I think. But it's a matter of we've done things for a certain way for a very long time down here and folks are

used to it. And I do think the misconception that wind energy is expensive is a major hindrance because one people backing information 20 years ago that wind is ridiculously expensive, they held on to that information without really being updated with it.

And so the more we can kind of get rid of those old mindsets and fill it in with new information, new data, actual power purchase agreement costs, I think folks will start to come around. And we're certainly seeing that with a TVA assigning a gig and a half worth of wind power purchase agreements and Alabama Power bringing in about 200 megawatts.

Ian Baring-Gould: Okay, another question. Are there any kind of special events or things of that nature that are happening around the conferences, the kind of major conferences that you are planning down in that region or not you planning, but are being planned, to try and address these misconceptions about wind technology?

Simon Mahan: I think the conferences themselves will do a very good job of presenting that information. The conference in Charlotte is definitely meant to draw a very good interest from the industry itself. And these types of conferences are the best sources of information for actual developers to come in and say, "Hey we just signed a power purchase agreement with this utility and we can't give you the exact cost but it was pretty good."

And you can get a lot of really good information from the sessions. But I will defer to Ian for wind power because typically Wind Powering America has had an all-state summit after the main event, so to speak.

And, you know, I think that's a very good resource where folks can go and plug in and share information from across the regions.

Ian Baring-Gould: Great. And just to fill in, Wind Powering America is still planning on doing the all state summit after wind power. One last question for you and then we'll have a question for Suzanne if I can get this back. Is there work that's actively going on to try to address some of the poor publicity that is being funded in the area in terms of billboards and things of that nature because of those entrenched industries?

Simon Mahan: It takes a little bit more time. What we're trying - what we're starting to see now is there's - since there're actual projects that are being proposed, the opposition is starting to come a little bit out of the woodwork now and so they can actually point to a development and say, "We don't like this development for X,Y,Z reason."

And so it takes us a little bit more time to evaluate how we're going to respond to that but we certainly do write letters to editors and have media contacts that we get in touch with. We don't purchase billboards just yet but we also attend a lot of events to do presentations and are very open to any suggestions that folks have to help combat misinformation.

Ian Baring-Gould: Great. Thank you Simon. The question for you Suzanne, if you're still here, at the end of your report, you list some suggestions regarding from respondents on what can be some of the key issues and one that you identify is the need to educate the public on wind energy. Do you have any suggestions on which venues would be the best way to do that - working through schools, community colleges, kind of city sustainability offices, state energy offices, things of that nature?

Suzanne Rynne: Sure, well I think there're lots of options and I think we were suggesting using avenues that are familiar with our core audience. So planners are used to

convening and organizing community workshops, evening or weekend educational sessions, putting together fact sheets.

So we're thinking more of the typical avenues that community planners work with and using modes of opportunities to hold free public meetings and allow your community members to gain some information. But certainly there are other great ideas in terms of working with your local community colleges, working with your local schools.

Again, we talked a lot about working with stakeholders and just seeing, you know, what are the relevant audiences in your community and what resources can be leveraged to get appropriate information out there.

Ian Baring-Gould: Great. And then is there any kind of information sources or tools that you could recommend that would assist kind of local governments in the planning and permitting process?

Suzanne Rynne: Yes, I think again some of what we heard from some of the case study committees, most of them were looking for other examples to get started so they're looking to other communities that were like theirs that had already put an ordinance in place.

They're looking for model ordinances, particularly from ones in their region or from their state. I know in this past hour, the speakers have talked about the differences in state legislation and so a lot of communities are looking for examples that are really specific and close to home that would be most pertinent to their situation.

So they're looking at simple model ordinances. And I think and again, looking to the other case study communities, so many of the planners that we talked

with are happy to share their stories and they're happy to share their successes and challenges and they want other communities to succeed as well.

Ian Baring-Gould: Great. Another question for Simon, is there resistance to the Clean Line and Pattern Energy projects that you know of?

Simon Mahan: I don't - oh, can you hear me? Sorry. I don't know of any specific opposition that we've heard of to those projects. They are expected to deliver at least the Clean Line project expects to deliver electricity fairly cheaply here to the Southeast so I think the cost that they have mentioned before is around the 55 to 65 megawatt - $65 per megawatt hour delivered cost in the TBA region.

And so I think at least utilities would be very interested in that development and as far as opposition I haven't heard of any.

(Sue): Hi Simon. It's (Sue). Sorry, Ian got bumped off. He is calling back in. Simon, are you still there as well?

Simon Mahan: Yes, I'm still here.

(Sue): Oh, okay great. Sorry. I just didn't know if we all got bumped off and it was not just Ian. Okay, so he is calling back in and I'm not sure if he had finished all of the questions. I believe so. So I will bring up our final slide and let everyone know that we have two more Webinars scheduled.

The next one is February 15th on recent workforce development activities and the one in March is on the 21st for development work - development markets for wind energy. And they are always on the third Wednesday of every month at 3:00 pm Eastern.

Ian Baring-Gould: This is Ian I'm back. Suzanne th- (Sue), sorry. Thank you so much for jumping in as my line got kicked out. One of the advantages of doing these. So just to finish up since we're a little bit past the hour and had gotten through almost all of the questions. There was one question specifically about balancing of wind and how balancing was going to happen as the economy improves and the current margin we have with power production.

And I would point people to two very good reports that were released in the last number of years - the north - or the Eastern and Western Interconnect Studies that were completed by the Department of Energy that really address balancing issues with wind technology and how we can balance power going forward.

And so do - anybody can Google any one of those studies and it provides at least a baseline of information for you. And that covered all of the questions. Lastly just want to provide a special thanks to the U.S. Department of Energy. They are the ones who fund the Wind Powering America activities and clearly this Webinar.

The contacts for the three of us - (Jonathan Barlett) who oversees the program for the Department of Energy, myself and then Charles Newcomb here at the National Renewable Energy Laboratory.

One last point, as I mentioned in the leadoff of this session, there were 24 of these projects that the Department of Energy funded and every time we cannot cover each one of these projects in a Webinar type series, but as things become available from each one of those projects, we do make that information available and contact information and that stuff available through the WPA newsletter.

So if you're not currently a member of that, please sign up. And any kind of - the products that come out of any of these activities as well as a host of other information is available through that source.

So thank you all, again, for spending the last hour and a little bit with us. Please join again next month where we're going to be talking about workforce development and some of the recent workforce development projects. And until that time, have a safe and happy start of your new year. Thank you very much. Bye-bye.

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