Corporate, Institutional, and Government Opportunities in Community Wind Development

Webinar Transcript

July 29, 2010

Introduction

Slide 1: Corporate, Institutional, and Government Opportunities in Community Wind Development

James Critchfield: Good afternoon and welcome to today's webinar on Corporate, Institution and Government Opportunities in the Community Wind Development Space. This webinar is hosted by the U.S. EPA's Green Power Partnership. And I am James Critchfield with the EPA and will be your host for today's webinar.

Slide 2: Today's Agenda

James Critchfield: Just a few things in terms of our agenda today, first, welcome to everybody who's joined us. We have a pretty full slate of folks on the line today including a lot of corporate, institutional, and government representatives. So, it's good to see the turnout.

First thing I'll do is go through some webinar logistics and then follow that up with a brief description of EPA's Green Power Partnership which the host to today's webinar. And I'll also provide some additional information on some other activities that EPA is doing in the Renewable Energy space.

Again, my name is James Critchfield, EPA program manager. And I will then follow up with some speaker introductions and we'll get right to the topic and today's presentations. Our first speaker will be Jacob Susman, CEO of Own Energy and he will be followed by Leon Steinberg, CEO of National Wind. And then we'll finish up today's webinar with a question and answer session.

Slide 3: Webinar Logistics

James Critchfield: In terms of webinar logistics, attendees will be on global mute so you will not be able to speak directly to anybody else on the call today. We are encouraging attendees to ask questions and in order to do that you can use the online control panel that should be located perhaps in the upper right-hand corner of your screen. It should look like the somewhat like the image that's depicted in this particular slide in the upper right-hand corner.

If you do not see that image, it's possible that the floating toolbar that you see down towards the bottom right-hand corner, you might need to click on the little white arrow that it's in the red box there to open up the control panel.

Slide 4: Today's Presentations & Podcast

James Critchfield: Just a reminder that today's presentations will be available on the Green Power Partnership website at the URL that's designated there at the top of the slide. The EPA's Green Power Partnership webinars are also available as podcasts. Here's a list of the few different webinars that has been done over the past year. All of these are currently available.

You can also subscribe to these podcasts via iTunes or an RSS feed by way of EPA's Green Power Partnership websites. And to learn more about how to access those, please visit the URL listed at the bottom of this slide. And once again, all of these slides and the information on them will be available on the Green Power Partnership website.

Slide 5: 2010 Upcoming Webinar

James Critchfield: Just a little upcoming webinar note, our next webinar is scheduled for August fourth at 2:00 pm Eastern Time. It's going to be addressing solar PV collaborative procurement strategies in particular related to the public sector. For some of you that may know County – Santa Clara, California has recently undergone a Renewable Energy procurement approach that included a multi-jurisdictional arrangement between a number of public agencies across a variety of sites that totaled solar PV installations upwards of 14.4 Megawatts.

The interesting thing about this particular collaborative procurement strategy was that it addressed some of the cost and resource issues that public entities currently are challenged with in deploying these types of projects and by leveraging different types of efficiencies in this process, they were able to get quite a bit of capacity in the ground.

Presenters for this webinar will include our own, Blaine Collison, program director for the Green Power Partnership. And we'll also have representatives on the line from the Silicon Valley Network, Optony, and County of Santa Clara.

To register for this webinar, you can visit the link provided there on the slide or visit EPA's Green Power Partnership website which is www.epa.gov/greenpower and go to the events and webinars page.

Slide 6: EPA's Green Power Partnership

James Critchfield: So now, a little bit about EPA's Green Power Partnership which is the host of today's webinar. The Green Power Partnership is a voluntary EPA program that seeks to reduce the greenhouse gas emissions associated with the electricity sector. And the program's mission is to increase the use of green power among leading U.S. organizations.

Partners purchase green power in amounts that meet or exceed EPA purchase benchmarks and in doing so, receive technical assistance and recognition from EPA. The partnership currently has more than 1,200 partners including Fortune 500 companies, small and medium-size business, a number of government agencies, and colleges and universities.

Slide 7: What is Green Power?

James Critchfield: EPA designs green power as environmentally differentiated electricity products. It can basically be any of these resources listed here on the slide. Basically, EPA view green power as a subset of broader renewable energy and represents those resources that provide the most environmental benefit.

Slide 8: How Much Green Power to Join?

James Critchfield: As I mentioned, the program is based around a number of benchmark that partner organizations must meet. This slide provides you a basic rundown of the different benchmark level. The percentage purchase requirement that each organization must meet is based on their - the organization's total electricity use which is column one. And there are two levels of partnership that an organization can come into the program at. One is the basic partnership benchmark level, which is the center column; and the second is the leadership benchmark level which is the right-hand column.

Slide 9: Green Power Procurement Options

James Critchfield: There are three general procurement options that are recognized through the program in terms of green power. Onsite generation, either hosting or owning a system onsite at your facility is one option; purchasing green power through a utility service provider is also another option and that includes both the environmental benefits as well as the electrons; and then renewable energy certificate is the most popular option currently in the program, and that procurement of renewable attributes.

Slide 10: Partnership Offerings & Benefits

James Critchfield: So, for those of you on today's call that are fairly new to purchasing green power, I'd probably direct you to the guide to purchasing green power which is depicted in the image in the upper right-hand corner as a great starting place to learn more about the process, what is involved, what the challenges and benefits are for procuring green power for your organization. I've already gone over the credible benchmarks and how much green power is considered enough, and as well as the eligible renewables.

I think lastly, the reorganization element is an important part of the program. And I would direct your attention to our national top partner list rankings which cover a number of sectors including corporate government and institutional types of organizations.

We also have an annual leadership awards that will be occurring this October, and we have a number of other promotional opportunities that are available to our partner organizations.

Slide 11: Want to Know More?

James Critchfield: So if you would like to know more about the green power partnership, I invite you to take a visit to the program's website which is epa.gov/greenpower. I also again point out our top partner list rankings which are available on that website as well. And if you have any additional questions about the program and how your organization can become a partner, please feel free to

contact Blaine Collison, the Program Manager for Green Power Partnership, or Anthony Amato who is the contractor for the program.

Slide 12: EPA's RE s RE-Powering America America's Lands

James Critchfield: Just one other element, another program or initiative that EPA is currently undertaking that might be relevant to some of the listeners on today's call is EPA's Re-powering America's Land's initiative. EPA is currently promoting the signing of renewal energy on contaminated lands that include such things as brownfields, superfund sites, abandoned mine lands, RCRA sites as well as landfills. EPA currently has mapped over 11,000 sites nationally which is about the equivalent of 15 million acres, and overlaid the renewal energy resource potential across those areas.

In addition, the mapping has also included different infrastructure elements such as transmission lines, roads, and railways that would be important to different types of projects. These sites offer a lot of interesting opportunities, lower transaction cost being one of them, but also improved public support since most of these sites are in fact have very few uses. Finding ways to reuse these sites is an important and an often publicly acceptable approach. These sites also sometimes offer faster permitting and zoning opportunities.

These initiatives also offer some technical assistance by way of feasibility studies for eligible sites. And the website that's listed at the bottom where you could find out more information includes a lot of information regarding incentives that applicable to these types of site as well as a number of success stories. If you have additional questions, I recommend contacting Laura Matthews who is EPA's lead on this particular program initiative.

Slide 13: Disclaimer of Endorsement and Liability

James Critchfield: So, just as a standard disclaimer, EPA provides these webinars as a service to the marketplace and information exchange. Today, EPA does not necessarily view or share the same views or opinions of today's speakers. So, without further ado, what I'd like to do is queue up our topic for today which is Corporate Institutional and Government Opportunities in Community Wind Development. Increasingly, these types of organizations are looking for opportunities to both own and invest in different types of renewable energy projects with the end goal of providing energy security as well as green house gas reduction benefits.

So, for our first speaker, I'd like to introduce Jacob Susman. Jacob is the founder and CEO of Own Energy, a leading developer of community wind projects in the U.S. Jacob has 10 years of investing in business development experience in the field of renewable energy and has led Own Energy since its inception. Before founding Own Energy, he was the founding member of Goldman Sachs' Alternative Energy Investing Group where he was involved in Goldman's investment in Horizon Wind Energy and co-led a portfolio financing that was named Project Finance's North America Renewable Energy Deal of the Year.

Prior to his stint with Goldman Sachs, Jacob served as project manager for AES Corporation working on a team that developed one of the largest power plants in Spain. He also led AES' efforts to develop a Spanish renewable energy business which included negotiation of over 1,000 mega watt hours of wind energy investment opportunities. Jacob holds an MBA from Wharton School and resides in Brooklyn, New York with his wife and two daughters. So with that, I'll pass over the controls to you, Jacob, and you can take it away.

Own Energy

Slide 1: Own Energy

Jacob Susman: Hi, everyone. Pleasure to be with you today. James, thanks so much for the kind introduction, and it's a real pleasure to be here with you all today. Leon, it's always a pleasure to speak at your side as well. I'm actually concerned that I may not have ability to advance the presentation here. So, let me just make sure that everybody is with me now on page two of the presentation. Is that correct?

James Critchfield: Yes, we can see that.

Slide 2: Discussion Overview

Jacob Susman: OK. Great. So, terrific. Well, let me walk through a little bit about in this order, what is Wind Development? What is Community Wind? And who is Own Energy? Because I think it's useful to give an instruction to wind development in general before we burrow down into specifics of Community Wind and then finally how we can use community wind that's the way to get governments institutions and commercial providers more involved in the wind sector in general.

So I'm now on page four actually, called Wind Development - just confirming again that everyone is keeping up as I advance through here. James, are we all right – up to page four?

James Critchfield: Yes. You're good.

Slide 3/Slide 4: Wind Development

Jacob Susman: OK. Great. So, these are kind of the main components of Wind Development. You got to start off picking the right sites, checking its feasibility and then moving through the early and middle stages of development, later into - the later more sort of commercial stages of development, and finally into financing the project, constructing it and operating it. A little bit more detail on that on the following page and you see here from our perspective, there is an early stage of development where the development effort is very localized, the cost is in tens of thousands of dollars.

Slide 5: Development Timeline and Cost

Jacob Susman: And the number of man-hours or the people-hours that is required to do the development work is relatively high, but actually the level of energy and the Community Wind sophistication that's required is a little bit lower which is a good thing because that means that people who are in that community who want to be involved in development can play an active and important role.

Then there's a middle stage of development that involves things like connecting the project to the grid, getting environmental permits in place, finding the person to purchase the power, and managing issues around the regulatory framework and the overall industry at the same time.

And here where you start to get into hundreds of thousands of dollars of soft development costs where you're dealing more with regional players as supposed to just local. And the man-hours are actually coming down but you do need more of that sophistication around energy in general and Wind Development in particular because now the issues are getting more complex and difficult to manage. Finally in the later stages of development, this is where you're dealing with national or international players. You're talking about constructing power stations so you're going to be buying turbines, you're going to be leading the construction effort, you're going to need to finance this facility and of course, you're going to have to operate it.

So, in that period of development, other than construction phase were they are many man-hours that go into the actual construction effort, the overall development man-hours here are relatively low but the sophistication and cost are probably at their highest. So I think our overall point here is that as you progress through development, you need that higher level of sophistication because it becomes larger and larger investments that require somebody who knows what they are doing. We'd like to spell out for the local partners we work with, what are the ways that they can get involved in the development of a wind farm and this is for any wind farm.

Slide 6: Options and Risks

Jacob Susman: You know you can take the approach of just signing up a lease option if you're a land owner who is in the footprint of a potential wind farm which in terms of its financial upside is relatively low but also the amount of control that local partner is going to have over the – or that local owner is going to have over the development of the project is also relatively low. But the good thing is they will not be asked to put forth a ton of effort and the amount of risk that they will have from the perspective of their own capital is relatively low. But they still have some amount of development risk because that project may never be successful, we put that as moderate.

In more of a joint development framework, you can see all the moderates pop-up in all those categories because that local partner is now playing a role in the project ownership, they have some amount of control over what happens in the development of the project, but they are also required to put in a certain amount of effort in capital. And now they are on the line for the development risk that that project entails.

But you see that from our perspective both are still probably - the right risk reward equation relative to just pure independent development. If this is for somebody who is local in that community who maybe is entrepreneurial but doesn't know the first thing about Wind Development while the financial upside can be very high, the amount capital on risk that they're taking on would also be fairly high to try to go it alone.

Slide 7: Land Use and Impact

Jacob Susman: A lot of people ask us sort of, what's the impact of these things in the local community where I'm going to build them? This is an example of the Hull community wind project just outside to Boston right near Logan Airport. But in that – there is a picture is rather but generally across the board you're talking about one to two acres that are impacted per turbine, you want to have set backs of on the order of 1200 feet from homes and roads. But in general, they're a minimal impact on operation at least as pertains to farming and ranching operations. Now, when you get into the corporate and industrial and government type to set ups, the impact on operations could potentially be a bit higher and you have to therefore just be that much more skilled in doing your early stage feasibility and siting work to make sure you're minimizing any potential impact.

Slide 8: How Big are These Things?

Jacob Susman: So, a fair question to ask is how big are these things? Well, we set this up for an opportunity in Kansas recently and just kind of looking at the smaller, more - either residential or behind the meter type of turbine, that's something like 225 kilowatts. You know you're talking about 27 meter facility. If it's a more utility scale or megawatt class machine in a 1.5 to 2.3 megawatt range, you see how they get over a hundred meters and can be taller than tallest building in Kansas. So, this is a serious structure that you'll see there on your property.

Slide 9: Site Suitability

Jacob Susman: And we gave an example of one of our early stage feasibility analyzes just kind of show some of the things that we look at. Things like where is the substation? What are the buffers who need around an airport? What is the industrial plant that you're in this case trying to serve? What are any protected areas from an environmental perspective in that area to just look in general at topographic features, interconnection issues, setbacks and another environment concerns.

Slide 10: Community Wind

Jacob Susman: Let me talk a little bit about Community Wind now. So, Community Wind is part of a broader trend towards mid-size projects and I think commercial and industrial and government development opportunities are great examples of the smaller types of project setups that we're beginning to see as some of the challenges of larger scale development increase. So, I'm actually – I'm going to skip kind of to the right side of this page because I think the drivers of renewable energy are well-established. I think there's no question that is a wind market that grows in a tremendous way by 2020.

Slide 11: Drivers of Mid-Sized Market Growth

Jacob Susman: But, specifically, in the mid-size market, we see a big portion of that growth coming north of $100 billion worth of opportunity, and that's because of three main issues. The first is that there are underserved cooperative municipality and smaller investor-owned utility and CNI off-take opportunities in the mid-sized project markets that are often overlooked by the – by some of the larger scale projects.

The second reason is that in mid-sized projects, you often end up with community support as opposed to the criticism that you increasingly see in some of the larger scale projects. And finally, the capacity and speed and limited expense of interconnecting mid-sized projects is what's also driving the growth in this market.

So, we are active participants in the American Wind Energy Association, which has an orientation to the larger projects historically, and we have a lot of friends in those companies and we're by no way saying that larger scale projects shouldn't continue to be built in a major way. And that's how we're going to get to our overall wind goals. But we do think that the mid-sized market is really poised for growth over the next several years.

Slide 12: Community Wind Taking Off in the U.S.A.

Jacob Susman: The other thing we think is poised for growth is community wind, specially. And it's really taking off in United States now. You know, it represents something like two to four percent of the overall wind market. Let's put that in perspective. There are countries in Europe like Denmark and Germany that have seen over 50 percent penetration of community wind.

And we think a lot of the reason for that is there's greater acceptance of wind by a broader base of constituents when you start offering ownership to folks who are local of that community. There are also more local jobs and profits that get recycled locally. And some of the things we're seeing here in the U.S. are you know now having a formal policy position that's come out of the American Wind Energy Association office seeing more ways to better use the existing transmission grid and more – pretty major investors pouring into the community wind space.

So, lots of recent movement in the community wind market, and reasonably, that is poised for tremendous growth.

Slide 13: Community Wind Characteristics

Jacob Susman: Here are some of the benefits of community wind. Its greater economic benefits for the community. It's community members who have a direct financial stake in the project where members of that community also have decision-making rights and project sizes that, in our experience, have typically been below 100 megawatts, and not to mention just a genuine sense of community involvement.

We increasingly find that members of the communities where wind is going to be developed are really crying out for an opportunity to be directly engaged in development and directly engaged in ownership.

Before I close the section here on community wind, I probably should have started upfront with a definition. And so, the way the American Wind Energy Association defines it and the way that Own Energy thinks about community wind is really any project under 20 megawatts that meets certain conditions of community acceptance, really, is a community wind project just by nature of its smaller size. And further on that definition, anything that's 20 to 100 megawatts can be considered community wind based on an ownership test.

So, the owners of the project would eventually have to prove that more than about a third of the project has been kept there in state or in the local community for it to be considered community wind.

Slide 14: CW for Corporates, Institutions and Governments

Jacob Susman: So, I want to move on now to how corporations, institutions and governments can play an important role in the growth of community wind over the next several years. You know, one of the things that we've seen or, in general, the things we've seen when CNIs look to get involved in community wind are just the obvious benefits that it brings to those types of investors and local partners in these projects.

Slide 15: C&I's and Community Wind

Jacob Susman: You know, first and foremost, wind, in general, can displace a higher avoided and floating cost of conventional power versus wind, which is a fixed rate resource over a 25 or so year project life. You know, there's also the ownership of the green credits and other renewable attributes like the RECs that come off of these projects. And we're pleased that many of the folks on the phone today and encouraged by the EPAs efforts are ramping up their desire to own more of these green credits which is terrific.

A lot of the incentives for wind, in general, come through tax credits, either in the form of an accelerated depreciation credit or a production tax credit or investment tax credit. And those offer an attractive tax shield to certain commercial and industrial partners in these projects. I should have mentioned this right up front, but these are attractive ROI opportunities for the CFOs on the phone. These are profitable projects, either from a cost avoidance perspective or from a straight commercial investment opportunity.

And, finally, increasingly, we're seeing companies with compliance goals around renewable energy, and these can help meet those goals and possibly more importantly, just the overall good feeling about companies that are investing, not only in renewable energy, but in community-based projects that are going to generate power right there close to home. That's really got a wonderful public relations message that it brings.

Slide 16: C&I Partners –Instrumental in Early Stage

Jacob Susman: So, I just want to walk through briefly, this is that same graphic we saw earlier in the presentation but switched around a little bit to show you that the role that a CNI partner can play in the development of a community wind project. And from our perspective, that CNI partner is going to be instrumental in the early stages of development.

So that's around things like picking the specific site for the project to be constructed and making sure there is appropriate control of the land that's required. There are aspects of the feasibility process, particularly as it pertains to the energy usage of the facility, or maybe some of the utility conditions in the area where the industrial producer may have some experience that it can provide.

And finally, we always encourage, in our business, our local partners to install a tower and study the wind for no less than six months before really proceeding with full-scale development of the project.

Slide 17: Developer Bridges Capital & Skill

Jacob Susman: Under our structuring, you would have the developer really bridge the middle stages of development. So that's things like making sure the project is getting interconnected and making – completing the wind resource analysis, completing some of the siting issues and then, of course, making sure that the permits are in place, that the regulatory conditions are met. But the one area where a local partner can play a very interesting role you know, especially in CNI projects, is an off-take.

You know, this is a real pinch point in our industry right now where there are fewer off-takers stepping up to buy their share of renewable power. And having an off-taker built into your project early on, i.e. a commercial installation where there's an anchor tenant for the power that can really make or break a project. So, although not as much effort is required from the local partner in these stages, what is really influential is knowing that you have that off-take agreement sort of already lined up.

Slide 18: Developer – Drives to Completion

Jacob Susman: And in the later stages of development, it's still the developer that's driving to completion. And while you're in the middle stages of development, you're already preparing for things like turbine procurement, construction, financing and operations. But when you get to these later stages of development, you've got a lot of those middle stages things worked out and you've got your site, you're permitted, you're interconnected and you're ready to go.

But now you need to go to the global turbine manufacturers and make sure you're getting the best deal. You need to make sure that your BOP contractor is going to be able to construct the project in a way that's financeable and that's going to be consistent with the way the host likes to run its facility.

But what is interesting is that in some instances a CNI investor can play an important role in the financing, certainly, by being part of that capital structure that if it chooses to invest in the equity, but also maybe finding other ways to help through the structuring process, and so many industrials already have their own financial relationships that they can bring to bear.

And then finally, it's the developer who ought to be controlling the operations of the project. I know that's probably difficult for some who are used to operating industrial facilities, but there are things that are unique to wind farm just like any industrial process that really deserved a wind experienced operator to be closely engaged in managing the process.

Slide 19: Own Energy Highlights

Jacob Susman: I'll just talk a little bit about Own Energy and then I'll run it over to the next presenter.

Slide 20: Leader in "Community Wind" and Mid-Sized Project Development

Jacob Susman: You know we are a leader in the community wind business and in mid-sized project development overall. We have 25 active projects around the country primarily in the Midwest, but as far east as Pennsylvania and as far west as Montana. Four hundred and seventy-five megawatts of our 1,600 megawatt pipeline are at what we call an actionable stage where they're actively negotiating off-take agreements or financing arrangements for the project.

We did successfully complete the development of a project in 2009 and ended up partnering with a large scale renewable energy IPP in that – in that project to carry it to completion. One of the things we're most excited about recently is our strategic alliance with the National Farmers Union, which many of you know is a powerful farmer group that really speaks to the community orientation that we bring to the table. And we work together on developing projects on community wind policy and certainly, on making sure that the NFU members are educated on wind energy issues.

I think the other thing that you need to know about our company is we're – as far as we know, we're the only venture-capital backed wind developer so that gives us a strong balance sheet at the corporate level. But we also have a framework agreement in place with a large European bank that enables us to carry projects through to commercial operations. So that effectively enables us to leverage that bank as our balance sheet in the process.

Slide 21: How OE Works With Local Partners

Jacob Susman: I think I mentioned a lot of this earlier but the way we work with local partners is we often sign that they turn up saying, "You know I've done some of the early stage work on a project, I've taught a little bit about feasibility or maybe I've gotten control of the land" or they might have even invested in that tower already.

But they're running into the part of the development process where they may be getting a little ahead of themselves either because they don't have the capital to complete the project or because they're – they don't have the expertise in areas like development, construction, turbine procurement and operations. So there's a real nice yin and yang, if you will, in the way that we work with local partners.

Slide 22: Management Team

Jacob Susman: James was kind enough to give my background; the other members of our senior management team Cindy Crooks spent 20 plus years at (FPL) Energy, which is next era today and the leading wind energy company in the United States in terms of installed capacity where Cindy led their turbine procurement efforts and warranty claims efforts not to mention the seven years she spent in development there of wind farms.

And Ray Henger our CFO spent 14 years at a combination of Credit Suisse and its predecessor DLJ exclusively in the energy industry, exclusively in project finance settings. And then we're joined by another 10 development professionals from companies like Horizon, GE, Goldman Sachs who are all leaders in the renewable energy business. Many or most of our team have advanced degrees, but they're a real down-to-earth crew who are passionate about renewable energy and about working with our local partners.

Slide 23: Contact Information

Jacob Susman: I thank you for your time. It's been a pleasure and I look forward to hearing comments from Leon and the other speakers. Thanks.

James Critchfield: Thank you, Jacob. I think now what we'll do is let me introduce our next speaker who is Leon Steinberg. He is the chief executive officer of National Wind. National Wind is the largest developer of utility scale community wind projects in the U.S., and is a company that has over 40 employees with offices in Minneapolis, Minnesota and Grand Forks, North Dakota.

National Wind is involved in developing both early and advanced stage projects in the states of North Dakota, South Dakota, Minnesota, Iowa, Colorado, Texas, Montana, Wyoming, Nebraska and Ohio. Leon is a member of the American Wind Energy Association, Windustry, and Wind on the Wires and also participates in a number of environmental groups.

Prior to his position in National Wind, Leon was founder and chief executive officer of Meritas and chief executive officer of Intellevate and FoundationIP. He currently serves on the board of National Wind, (Delphi) Financial Holdings, Key Capital and Washington Law and Politics Magazine. Leon is married with five children and has an undergraduate degree from the University of Minnesota and a Juris Doctorate.

So with that, I'd like to turn the controls over to Leon so we can hear a little about your innovative windfrastructure product offering that might provide some interesting benefits to some of the callers on our webinar today.

National Wind

Slide 1/Slide 2: National Wind

Leon Steinberg: Thank you very much Jim. And Jacob, thank you for laying a great foundation. Jim, before you put your phone on mute, can you see the presentation, my PowerPoint?

James Critchfield: Not yet. I think you need to activate the – there you go.

Leon Steinberg: OK, great. Thanks again. I'm going to go in slightly different order than Jacob. I'll start by spending no more than a minute talking about our company to give you a little background.

Slide 3: Who We Are

Leon Steinberg: What we refer to, National Wind is a utility scale community wind developer. Utility scale means 50 megawatts or larger and community, to us, means that we are in a legal partnership with the community, and, in our case, that means that the community will end up owning a majority of our project by the time it's ready to start construction.

As was said, we're based in Minneapolis, we have 42 employees. We also have a wind assessment division that does feasibility analysis and engineering services not only for National Wind projects, but, in fact, the majority their work is done for other developers and for corporations exploring wind projects.

As Jacob said and I just want to emphasize one of the great advantages of community wind is the input that the community has in the project and we have built our model around that. We have also built our model around the idea of returning profits to the community.

Slide 4: Development Projects

Leon Steinberg: And this slide shows you where our projects are located. Our projects are quite a bit larger than most community wind developers. Our average size is 350 megawatts. However, we develop them in phases of between 50 and 100 megawatts per phase.

And so, a project might develop at first phase in 2007, and its second phase on 2010, its third phase, et cetera, et cetera. It may take a number of years for the project to be completely developed.

Slide 5: Overview/Slide 6: Community Wind

Leon Steinberg: I'm going to talk today about how organizations can become involved in community wind – in wind in general, but, in particular, community wind projects. I'm also going to examine and talk about ways in which – the ways in which they can become involved.

Slide 7: Part 1: Ways to Procure Electricity From a Community Wind Farm

Leon Steinberg: Let me come back to the slide in a minute.

Slide 8: Key Concepts

Leon Steinberg: I want to talk about some of the key concepts that many within the sustainability movement used in analyzing whether a particular arrangement, a sustainability arrangement, is ideal for their company. And there are five basic concepts which are used in evaluating opportunities.

One is additionality, very simple, if it's going to result in a new renewable energy source, or in our case, a new wind farm, and, two, ideally perfect world, it would be financially neutral. It wouldn't cost them anymore to get wind power than (brown) power. Third, ideally, it's traceable. They can see where the power is coming from.

Four, ideally, it would be brandable. They could put their name on the wind farm and/or tell the world that that is their wind farm. And finally, and this is probably goes without stating, it has to reduce their carbon footprint.

Slide 9: Renewable Energy Certificates (RECs)

Leon Steinberg: One way of doing this is buying renewable energy certificates. You may have read if you're – especially if you're in the Minneapolis area, you've read the press about Target Field purchasing nearly 8,000 RECs. By the way, Target Field was voted the best baseball stadium in the United States.

RECs are wonderful things, but if we put them up on our scale to determine how they compete with other sources, do they create additionality? Many would argue no, some argue yes. They'd say that buying RECs subsidizes indirectly wind farms, and allows for the building of additional wind farms.

Are they financially neutral? No, RECs cost money in addition to what you're already paying for electricity. Is it traceable? Many would say no, you don't know where it's coming from. Others would say yes, you know where you're buying the RECs from. And in the sum of the certification programs, there's regionality required. So that's a grey area. Is it brandable? No. And does it have the sustainability? Yes.

Slide 10: Captive Wind Farm

Leon Steinberg: So, RECs are one viable option. Another option is a captive wind farm. And Jacob spoke about the – how great this can be for community development. In this slide you'll see a picture of the California Portland Cement Plant. They were fortunate enough that they had a great wind source right where their plant was located.

Now, if the wind resource was 10 miles away, that wouldn't change anything. All it would mean is that we would have to run what's called a radio line or extension cord from that captive wind farm to their facility. It wouldn't have to go through the grid and it's irrelative – it may sound like a major undertaking but it's really not.

If we look at a captive wind farm, either on-site or off-site, did it create additionality? Absolutely. That farm wouldn't exist if it weren't for this arrangement. Is it financially neutral? In many cases, yes, it can be. In fact, it might even be financially better. Is it traceable? Absolutely. You can look at the wind farm or trace that extension cord right back to the wind farm.

Is it brandable? Yes, right here, this is the California Portland Cement wind farm. And does it add to sustainability? Absolutely. This is a great alternative. There are not many places where you have the combination of great wind and the ability to connect with the facility, but it can happen.

Slide 11: Third-Party Wind Farm

Leon Steinberg: Another option is power purchase agreement with a private wind farm. That can either be on the – through the grid or off the grid. And here's what I mean by that. I'll use our Ohio project as an example.

We have two corporations that are interested in buying power from that wind farm. One of them is located very close to the wind farm. We would contract with them. We would run a line directly from the wind farm behind their meter. That's what's called behind the meter and we don't go through the grid. We don't have any filings to make to get interconnection agreements. It's a very straightforward process.

The other party that's interested in that wind farm is probably 45, 50 miles away and there, they would buy it from us, but we would contract to put it on the grid and we would pay the transmission providers a fee for wheeling the power from the wind farm to that particular user. This type of arrangement works best when you're going through the grid in a deregulated market.

Example, in the news recently was Wal-Mart entering into a PPA with the wind farm in Texas. If we look at the criteria here, does it create additionality? It probably does. There's a maybe here, but I come down on the side that it does. Is it financially neutral? Probably not. There's probably a premium that's paid for that electricity. Is it traceable and brandable? Clearly. And is it – does it add to sustainability? Yes.

Slide 12: Utility Green Pricing Programs

Leon Steinberg: Another method which was also discussed earlier is purchasing wind power through utility green pricing programs, and most major utilities have green pricing programs. Additionality? Again, I'm not sure. Many people would say yes. You buy more wind power; they have to put more

wind on. It's additionality. But it's not clear. It's not – we sign up and there's a new wind farm. Financially neutral? No, there's a premium pay. Traceable? Again, maybe. Brandable? No. Does it add to sustainability? Yes.

Slide 13: Windfrastructure

Leon Steinberg: And I just want to say – just because something doesn't meet all of the criteria, it doesn't make it a bad program. It's better than nothing and it's a lot better than nothing. But it – we're just trying to rank different opportunities. And I think the reason we were invited to talk today is because of the program we have called Windfrastructure. And what Windfrastructure does is it allows a power user to buy renewable energy through a power purchase agreement and get an economic return for doing so. And we specifically designed the program so that it creates additionality, it's by definition going to be financially neutral, there's clear traceability, brandability, and it leads to sustainability, it reduces the carbon footprint and it's sustainable.

Slide 14: Windfrastructure; Options in Deregulated and Regulated Electricity Markets

Leon Steinberg: So, what I want to do for about three minutes is talk about how this program works. And I'm going to go quickly through some slides. It's slightly different in a regulated or deregulated market, but let's talk about a deregulated market first.

Slide 15: Windfrastructure Options in a Deregulated Market; Renewable Energy Generation

Leon Steinberg: And the definition or the difference is in a regulated market, you could only purchase from a utility. They have a monopoly. In a deregulated market, you can buy from anyone.

Slide 16: Windfrastructure Options in a Deregulated Market; Power Transmission and Distribution

Leon Steinberg: So, now, in our deregulated market, here you see our wind farm and here you see a picture of the power lines carrying the wind from the wind farm to the power users. And in this example, we have sold power directly to a power user. And you see the power flowing.

Slide 17: Windfrastructure Options in a Deregulated Market; Payment to Wind Farm

Leon Steinberg: Now, you see an arrow that represents the payment from the power user to the wind farm. We like that part, by the way.

Slide 18: Windfrastructure Options in a Deregulated Market; Financial Return to Power User

Leon Steinberg: Then what's unique about this program is that in exchange for the power user buying that wind energy and, let's say hypothetically, they're paying $500,000 a year extra – for it's a large

power user, they're paying $500,000 more for wind power than they would have paid for conventional power – then, we provide a return to them of the equivalent of that amount of money.

Slide 19: Windfrastructure Options in a Deregulated Market; Financial Return Repayment

Leon Steinberg: And that can come in two forms. It could be, A, a repayment obligation, which is you paid $500,000 a year and let's say they committed to do this for 10 years, there's $5 million, we will repay that to you plus interest once the wind farm's debt is paid off, usually in the 15th to 17th year of operation. So, they get their money back plus interest.

Slide 20: Windfrastructure Options in a Deregulated Market; Financial Return Equity Interest

Leon Steinberg: Another option, and for some companies they'd sooner have an equity interest in the wind farm, so, every year they pay that $500,000 premium, we give them $500,000 worth of the equity in the wind farm. And the reason we structure it so that each year when they pay a premium they get something of equal value back is so that on their financial statements it's financially neutral. You don't have to worry about your controller saying, "Hey, didn't you know there was a recession? We can't increase expenses. We have shareholders we have to answer to." Under this scenario, the P&L is neutral.

Slide 21: Windfrastructure Options in a Regulated Market; Renewable Energy Generation

Leon Steinberg: In a – now let me talk for a minute for about a regulated environment. Here, it is slightly different.

Slide 22: Windfrastructure Options in a Regulated Market; Power Transmission

Leon Steinberg: Again, here's our wind farm. Now, you see the power going to utility

Slide 23: Windfrastructure Options in a Regulated Market; Power Distribution

Leon Steinberg: And the utility ships it on to the power user.

Slide 24: Windfrastructure Options in a Regulated Market; Payment to Utility

Leon Steinberg: Once that power user is unable to pay us for the power, they have to pay the utility.

Slide 25: Windfrastructure Options in a Regulated Market; Payment to Wind Farm

Leon Steinberg: And the utility pays the money to the wind farm. We like that part.

Slide 26: Windfrastructure Options in a Regulated Market; Financial Return to Power User

Leon Steinberg: But what's different here is that now we at the wind farm end up paying either a repayment obligation or provide equity to the power users in consideration of the premium they've paid to the utility for the power.

Slide 27: Windfrastructure Options in a Regulated Market; Financial Return - Repayment

Leon Steinberg: The economics in a regulated market are the same as in unregulated markets, but the way the money flows is different.

Slide 28: Windfrastructure Options in a Regulated Market; Financial Return – Equity Interest

Leon Steinberg: If – in the Wal-Mart example we talked about earlier, that's in unregulated state where they purchase power from a Texas wind farm. Had they done that using the Windfrastructure program, they not only would have had the sustainable power but they also would have either had a repayment obligation or a significant equity interest in the wind farm when they were all done with their program.

Slide 29: Part 2: Ways to Participate in the Financing of a Community Wind Farm

Leon Steinberg: I'm sure there'll be some questions on this issue when we get to the Q&A session. But now I want to talk about ways in which entities can invest in wind farms and participate.

Slide 30: Investment or Loan

Leon Steinberg: The easiest is just a straight investment or loan.

An example of this is General Mills. I probably should have received their consent to state this publicly on this webinar, but General Mills invested in one of our community wind farms. A wonderful thing, it was greatly needed by that wind farm. It helped bolster the local economy and it demonstrated General Mills' commitment to sustainability. They will receive a nice return on that investment.

It was a great thing. It didn't necessarily satisfy their sustainability efforts in that they weren't getting – it wasn't doing anything to reduce their carbon footprint, but in the overall world, it was creating additionality and very much helping the environment.

Slide 31: Private PPA

Leon Steinberg: Another option is a private (PPA). Jacob alluded to these. That is where in an unregulated area or in a regulated behind the meter option, you're buying power directly from the wind farm. This clearly adds to sustainability, additionality. It's a good option and it's very straightforward.

Slide 32 and 33: Tax Equity Investment

Leon Steinberg: Tax equity, there are tax credits available to wind farms and in particular community wind farms. You may have read recently that Google invested tax equity in a wind project in North Dakota. That's the Ashtabula Project. It's a community or was a community project. It was – the community decided to sell that project. But that was a very helpful thing for that project and I think a good investment for Google.

Slide 34: Windfrastructure

Leon Steinberg: The final thing – I see I'm running out of time – the final thing I want to comment on again is Winfrastructure. It's the only program that we're aware of that allows corporations to buy or institutions or government entities to buy power from a wind farm and, in exchange for the premium that they pay for wind, actually receive something in return.

Slide 36: National Wind, Windfrastructure
Leon Steinberg: And this is our – it's a patent pending program. We are just rolling it out and starting to talk to corporations. And we're hoping that this webinar will spark some interest. I will conclude my comments and, Jim, I turn it back to you.

Question and Answer

James Critchfield: All right. Thank you, Leon. We do in fact have a number of questions here in the queue. And I encourage everybody to continue to submit your questions. You can do so through the online window, chat window that's available to the webinar interface and just simply type your question in and hit "Send" and we will received it and we will try to get to everybody's questions here today.

And in the case that we cannot get to everybody's questions today, EPA will make available a question and answer document at a later time when we post all the different documents related to this webinar on the Green Power Partnership website.

So, if you have a question that you don't hear answered here today, please check back with us.

So on that note, I think our first question, maybe I'll direct this question to Jacob. One of the questions that somebody asked was, "What's some of the concerns are between urban and rural types of installation environments? So you know are there – can you put in community wind projects into densely populated areas? What are some of the concerns? What are some of the trends going on with that type of situation?

Jacob Susman: Thanks for the question, Jim. So, the sure answer is, yes, you can put them into urban areas. In fact, there are some really neat examples like the one in Atlantic City, New Jersey that was developed a number of years ago by somebody called Community Energy that is part of a waste treatment plant but is also a prominent picture now in the Atlantic City horizon if you drive into town.

The Hull turbine that I showed you earlier again right next to Logan Airport, there are a couple of opportunities here in the New York City area. And we've heard about some others that are going on in the Mid-Atlantic and also out west. So, the short answer is you absolutely can do these in urban areas.

It does raise a couple of issues of complexity particularly in the permitting and also in the construction, so, that may also serve to raise the costs and it can stretch out the timeline. But the opportunity to get one of these projects into an urban area where it's such a prominent fixture may in many instances outweigh the additional costs or timelines.

But I guess to the broader question there are major distinctions between doing this in urban areas and in rural areas, and I think that's one of the reasons why when you work on feasibility it's important to work with the developer who's had experienced up and down the range of different outcomes here to tell you whether or not the project is going to be feasible.

James Critchfield: Great, OK. Our next question, I think within the industry there's always a lot of discussion between the different factors that go into successful projects or perhaps even the barriers that are often part of any type of project, one of those barriers is sort of the engagement of the broader community early in the process, and that's sort of in the backdrop of other issues such as

interconnection or permitting or siting. For the folks on the call today, could you just take a few comments on where – what some other things that they may want to think about early in the process as they were considering doing a community wind development project and which ones on your mind tend to be some of the more important things to think about?

Jacob Susman: Want to go ahead, Leon?

Leon Steinberg: Sure, just a little bit about how we work as a company, and this is directly on point. We don't do any direct marketing or prospecting. We receive inquiries from community groups, oftentimes groups of farmers or ranchers, asking us to (inaudible) project with them. And so we are constantly – and we get at least a call a week like that. And we then ask the question, "Is this a good community project?"

And there are lots of questions we ask. And we go through a very formulaic approach to determine if it's a good project. The first thing we look at is, "Is there community support for the project?" and "Is this one individual or does he speak on behalf of several people?" If there's support, then we look at the wind regime. "Is this good wind or better than the other wind in the region". Ohio is not as good as South Dakota, but it's better – our project there is better than many of the surrounding areas. Third, we look at transmission. Are we going to be able to connect these projects to the grid?

And then if we're yes on all of that, we look at economics. What's the prevailing rate for power in that community in that area? And given all we know about the wind and transmission expenses, et cetera, will this project break even or make money? And if the answer to any of those is no, we're done. If the answer to all of those are yes, then we do an on-site environmental analysis to make sure that we are not going to run into or we at least eliminate the likelihood that we'll run into any environmental problems.

We check FAA clearances, airports, we go out and talk to people in the community, and then we require to test the community's resolve. We require the community to actually fund part of the project.

So, that's the process we go through. Everybody's a little different, but those are the major factors I would encourage anyone to evaluate in that regard.

Jacob, do you want to add anything to that?

Jacob Susman: I mean, well, you did a great job Leon. I mean that is you know a very, very familiar process when you lay it out because it's a lot of the same way we do things here. You know, the part that I might add that I'm sure is specific, it's similar to a lot of businesses in community when there is – you have to make sure that that local agent involved in the development of the project is you know, I mean, you treat them like a member of the development team, which means they have responsibilities that they need to carry out, they have a certain level of community relations that they're responsible for managing and that there's a good working relationship with that person so they also know when to pick

up the phone and call you and say, "Look I'm a little bit past my you know ability and experience here and I need your help".

So I just think having that local partner actively engaged in the development process really helps to avoid or manage downward the level of criticism or community opposition that often comes up in the commercial projects. And I think that's one of the really unique and wonderful things about community when it's having some of these local baked into the deal.

James Critchfield: Great. OK, on to our – the next question. I think both speakers sort of mentioned about you know issues related to different cash flow, revenue streams and the role of renewed energy certificates and the like in the concept of additionality. Do you – what is your perspective on the importance of Renewable Energy Certificates primarily in these types of projects where oftentimes the off takers, one of their primary goals is to reduce their carbon footprints and of course retain some of those Renewable Energy Certificates for those claims.

Could you speak to anything on those lines as far as the role of RECs in these projects?

Jacob Susman: I'll take a (stab at that) and then – Leon it sounds like you're more expert on the additionality question. You know, one of the things that we are seeing in some of the markets where we operate is actually relatively low pricing on the RECs today and that's in some of the Great Plains States. And I think the reason is in a lot of those states, there isn't a hard target around a renewable portfolio standard.

And so, the value has a bid down, has been bid down where I think the values have been sustained on RECs have been in some of the markets where probably a lot of the people on this call are operating in places like the (PJM Interconnect) in the upper mid west or maybe on the coast where you have a higher industrial and commercial type of contents.

So the good news is you know, you will be able to ascribe a higher amount of value in those states to the REC component. What I just would caution everybody on the phone to keep in mind is, you know, regulatory changes don't lead to gradual changes in REC value or in the inverse, in the cost of carbon.

They, you know, they lead to sort of overnight fee changes and if we were to get a cap and trade bill which unfortunately this year it doesn't look like it's going to happen or if we were to get a renewable energy standard and an energy bill which also it disappointingly – it doesn't look like it's going to happen or at least that was the latest news then, you know, that means that those values for RECs stayed bid down for a while.

But if you're a believer that those things are eventually coming, it's a great way to manage your carbon exposure to have access to RECs and in my view while the markets are down, it's a great time to go along renewable attributes if you think we eventually going to have the federal renewable energy standards.

Leon Steinberg: Yes, I agree with Jacob. I would just add the component, an additional thought in that under almost all of the Green-e certification programs and the RECs standards, you can't have multiple people claiming the attributes of Green energy or of a wind farm. So, if I'm going to say this is the Wal-Mart wind farm, I can't also sell those RECs. They go hand in hand.

So in most of the discussions we've had, the Corp – the (C&I) using the same terminology as Jacob had, wants to take those RECs and wants to retire those RECs on behalf of the wind farm. And that's often times important. In other cases where there's sale of the RECs, I completely agree with Jacob. As far as additionality goes, I think it's a very important concept as well as traceability.

We've talked to several including major academic institutions that won't buy RECs because they can't see where the power is coming from. They can't trace it. And they don't believe it creates additionality. So, I think it is a strong concept in much of the corporate and institutional world.

James Critchfield: OK. See, how we doing on time here? We got maybe another eight minutes before we're done. I guess, for our next question, I see a couple questions that have come in from – what looks like from some very specific end-user groups such as college and universities and tribal land stakeholders.

What sort of examples or experience do either one of your organizations has in doing these types of projects with those types of stakeholder groups? And is there anything unique about the college and university sector or working on the tribal lands that you know, you might be able to provide some insight on?

Jacob Susman: I can take the universities piece and you know, we're actually in conversations with three different universities and three different regions right now. So I guess first and foremost we're seeing a lot of activity in that regard and I know another colleague of ours in the community wind space SED, Sustainable Energy Development have just recently installed the turbine at the University of Delaware.

So there's a lot of action in that part of the industry. And I think part of the reason is you know, universities have a social component that they're looking to buy for, so it's not just the value of the power. It's not even just the value of the renewable energy attributes, but it's also things like contributing to the educational experience, you know, having sort of a social mission that wants to drive that local value from local ownership that you get in community wind, so from where we sit, the university market is a hot one.

Leon Steinberg: And this is Leon. We too are talking to universities with regard to the windfrastructure programs. Given some of the financial challenges that universities are facing these days, they like the idea of getting something back for the renewable energy purchase. We too have – understand there are

social attributes that institutions and tribes have with regard to wind energy. And frankly, we're less interested in those as an organization.

We have avoided situations where universities want to put one or two turbines on site. And it may be a good idea, but we're going to let other developers do that. The university – the institutions we're talking to are interested in a decent size wind farm that's economically viable that can provide a meaningful amount of power and that they can give their students access to for a learning environment. And those we find very interesting.

We have had several discussions with tribes. Unfortunately, we haven't been able to put anything together, and in our model, we're happy to share ownership and give the majority of ownership to a tribe. We just haven't seen the right opportunity to work on it yet, but we're very interested. And I don't see the issues other than sovereign immunity, which I think you can get around. I don't see any other major differences between a tribe and other communities.

James Critchfield: Excellent. There's one question here that's kind of interesting given that you know a fair number of communities around the U.S. have some sort of waterfront property you know, near Great Lakes or oceans or what have you that may have good wind resources. How does offshore community wind development sort of factor in all of this? What – is there a project that has been done like that? What can you tell us about that?

Leon Steinberg: I'm not aware of any community-oriented offshore wind projects. The couple of potential projects we've looked at were not economically feasible. We did not pursue them. I don't know, Jacob, have you had any involvement?

Jacob Susman: We have not touched it. If there's something going on in that vertical, it's not something that we're, frankly, even aware of.

James Critchfield: OK. See here. Leon, you mentioned about the brand ability aspect of windfrastructure. Could you provide a little more information on how that works exactly in windfrastructure, and particularly given that the ownership of the wind farm sort of changes hands partway through that timeframe?

Leon Steinberg: Yes. In windfrastructure, if an entity is buying power from the wind farm and are buying the environmental attributes as well, then they're allowed to brand the wind farm. So if it was Wal-Mart, hypothetically, they could call it the Wal-Mart wind farm. And they're – the ownership issue isn't a barrier to naming rights, it's who's the off taker and where are the RECs flowing which is a barrier, which is satisfied in the windfrastructure program.

And for many corporations – I don't call this green-washing, and I think it's – they are environmentally conscious entities and they want their employees and they want the world to know that and I see nothing inconsistent with brandability of that wind farm.

James Critchfield: OK. Well, thank you. It looks like we're at the end of our allotted timeslot here (certainly) interest to staying on our schedule. I just want to thank you both our speakers today. It's interesting to hear about the community wind opportunity.

And for our listeners, you will be given a survey here after the end of this webinar, where you can answer a few questions about the webinar itself and also indicate if you're interested in being contacted by either of our speakers today.

And I want to take this opportunity again to thank both Jacob and Leon for their time and willingness to share some of their insights. Thank you, guys.

Jacob Susman: Thank you, Jim.

Leon Steinberg: Thanks a lot.

James Critchfield: All right. We'll see you all for the next webinar.

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