ECONOMIC DEVELOPMENT CASE STUDIES
February 17, 2010

Coordinator: Welcome and thank you for standing by. At this time all participants will be in listen-only mode throughout the duration of today's conference call.

Today's conference is being recorded. If you have any objections you may disconnect at this time.

And now I'd like to turn the meeting over to Mr. (Ryan Harry). Sir you may begin.

(Ryan Harry): Good morning everyone or I guess afternoon depending on where you're listening from. I'd like to welcome you to today's Webinar covering economic development case studies.

And this is the second in this year's series of Webinars sponsored by NRECA, APPA, the Western Area Power Administration, (Vue E)'s wind and hydro technologies program, NREL, UWIG, AWEA, and NWCC.

If you could - we have four speakers today -- Charles Newcomb, Dave Rich, Rob Rebenitsch, and Randy Hauck.

And, you know, they're going to be covering a number of renewable energy case studies. If you have a question we're going to do a Q&A afterwards after the four speakers are complete.

And if you could just type your question into the Q&A text box. You can access that by clicking on the Q&A tab up at the top of your screen.

If you have any further questions you can contact our technical support contractor. And his name is (Robert Putnam). And he can be reached at 315-751-2638. And here's his information right here. He's with (CH Tumhill).

And the next Webinar in this series will be on May 19. And the topic's going to be interconnection issues.

So be sure to visit repartners.org for those updates and also to register for the next Webinar. You can visit www.windWebinar.govtools.us.

And with that I'd like to introduce our first speaker Charles Newcomb. Charles oversees all technical decisions at NextGen Energy Partners, a developer owner operator of distributed energy systems.

Charles spent a decade at the Department of Energy's National Wind Technology Center where he led a technical team in developing the technical requirements for USDA's $25 million renewable energy grant loan program.

Charles continued his work in the wind turbine manufacturing sector where as Managing Director of operations provided technical and engineering direction and support.

Charles served as Vice President of the Small Wind Certification Council as Board of Directors for the first two years of the council's operation. With that I'm going to turn it over to Charles.

Charles Newcomb: Thank you (Ryan). Can you hear me okay everyone? I guess only (Sue), you can respond to that as a (unintelligible).

(Sue): You're good Charles.

Charles Newcomb: All right. I want to express my appreciation for being invited to present on this. I wanted to first give a word to my sponsor is NextGen Energy Partners.

As (Ryan) described we are a third party renewable energy partner in the space of about 100 KW down small public projects up to about 3 megawatts, so the half million to a few million dollar project scale.

We are technology agnostic meaning we'll do wind, solar, some small hydro projects in the 1 to 5 meg kind of fill in infill projects.

We have a national footprint although I kind of describe it as more like a fighter - a spider's footprint then - that we touched on in a few states coast to coast.

And in today's climate of economic hard times we tend to be focused on public projects because these are companies or institutions I should say, that we can feel good about them being around for the long haul. It's a hard time for a lot of folks.

First of all perspective on where I'm coming from so you can kind of get a feel is that my background at NREL definitely gave me some nice roots in the technology and policy side of things, mostly in wind energy.

I also spent a few years with Integrity Wind Systems which was a manufacturer of 50 kilowatt three phase 480 wind turbine for small commercial projects.

And now with NextGen my experience is into this project ownership, development ownership own and operator space which is it's fun to have had

the opportunity to kind of reach across these various sides of the distributed sector.

It’s been - also I've been privileged to have direct project experience across a number of states and a whole mess of utilities from some urban or suburban projects out to some fairly remote projects.

And that’s given me a nice appreciation for the rural electrics and the small munis as well as the joy really of sort of I describe them as the field of dreams experiences where you build it and it happens to be midnight but the whole town shows up for the lifting of the nacelle or the rotor.

And it’s always a really wonderful thing to be part of that kind of economic shot in the arm or shot of pride in the arm sometimes. It gives people a real great sense of hope in rural communities. So I've been very privileged and blessed to be part of that.

A little bit of perspective on the presentation so you know what’s coming up. I'd like to define what distributed is in my world.

Everybody has different perspectives on what distributive is. And so it’s always good to define it so you make sure you have some common ground.

I want to talk a little bit about the near term benefits and give you some perspective with respect to utility scale projects that you may be more conversant in.

I also want to talk about what’s kind of happening in the renewable energy marketplace and where distributed projects may fit into that.

And when I say distributive projects I mean more specifically kind of the commercial midscale type of project and then again how publicly owned utilities can activate those opportunities, the economic benefit opportunities.

So in terms of describing what a distributed when project is or what does it mean, I like to draw a pretty bright line between a specific use, an end use and something that's on a - more of a selling power to a utility.

So if it's a PPA2A utility I wouldn't call that distributed although it may be distributed physically. I would call that more of a utility project.

Even if it's, you know, comprised of 15, 50 kilowatt, the units up in (Kotsaby), Alaska I still call that a utility project.

And sometimes you can put a GE 1.5 behind a huge cheese plant and that would be a distributed product because it's meeting a specific end use.

But typically you see the distributive projects in the 50 kilowatt to around a megawatt in size. And that upper scale again is a little bit mushy.

But it's somewhat self limiting. Because the economics get pretty thin when you start to put a single multi-megawatt machine out with a very large crane and large remote fees and construction asset first costs that don't get amortized across a number of machines.

So there's kind of a natural limiter that's in the midscale, the 6 to 750 scale. So that's a module size. You may get a few 386es out there so you can end up with a few megawatts. But generally that's the scale.

We usually see them at distribution voltage. It would be extremely unusual to see someone (inter-tie) at anything other than distribution voltage, so in the 12, 4, 7, 13, 2 kind of range.

When I say rural but not remote again, because these projects that I'm talking about are not residential -- these are commercial scale projects -- and you don't find megawatt or half megawatt loads often in the middle of nowhere.

Typically they're around a municipality. They're - every once in a while you'll get a transportation center or something like that.

But generally speaking we're talking about K-12 institutions, we're talking about colleges and universities, water treatment facilities. Some businesses that tend to locate themselves around communities.

And then they're usually installed by local service providers. So somebody with a local footprint, maybe in the state. But generally don't import people to install a single machine from out of state.

You may on the technical service side on the commissioning side of things. But generally speaking all the talent, the construction talent is local.

So my guess is that most people on the line have - are somewhat conversant in the utility scale.

So again, you know, beating the dead horse a little bit but with, you know, kind of giving you a perspective on what distributed is where you'll see a local economic benefit for utility scale projects like land leases.

The difference for a distributed on-site project is that it's an on-site energy savings. Typically the projects will only go forward if they can offer an on-site savings. So that's usually the economic benefit there.

Whereas a utility scale project is bringing local revenues, tax revenues. If it's a public project then the case can be made that in fact you're seeing some tax stability.

Your mill levy is stabilizing a little bit because energy costs for the school or the water treatment or the city buildings has been able to be stabilized. So that's a nice case there.

Again whereas when you have a PPA for a utility with a wind farm sure that's, you're reducing the volatility of that energy streams cost. And the same thing is exactly true for distributed project.

And again like the PPA is you get this long-term predictable. So you're reducing the volatility and you also have a point in time somewhere ten, 20 years out where you know what you're energy costs are going to be. And that value is also there for the distributive projects.

The difference between distributed and utility scale really is what's the balance of plant? What's the construction? How much of that stays locally?

And there's a case that you can imagine that on a residential scale project that's being done by people in town completely.

And on a utility scale project of a few hundreds of megawatts you may be importing batch plants. So you're getting aggregate but you brought in your own batch plant.

So you're a large construction effort and you may or may not use as much local talent. So these commercial scale distributive projects fall somewhere between.

And again, sort of comparing commercial scale with residential and utility from a utilities perspective per megawatt installed, a commercial scale project obviously has fewer media connections per megawatt installed.

And that means that it's fewer headaches. It's a lower bandwidth requirement for your engineers. So that's a plus for sure.

Also on these projects scales in the half million to a few million dollars you don't get hacks who could do it more than once.

So you get these people who tend to be a little bit more experienced, again lower bandwidth from the interconnection side of things. And that's meaningful.

And then in terms of getting megawatts in the ground, commercial scale is - it's a meaningful scale. It's something - it's typically a turbine that can be seen from some distance. It's if you got more than a few hundred feet away from 1 kilowatt you kind of have to get out your binoculars to see it.

Whereas when you have a single 600 or a single 750 it still can be seen from a little ways away. So it's a meaningful and it actually is generating, you know, thousands of megawatt hours a year. So it's a real number.

But it's using the existing infrastructure, the distribution system that's already out there is tied into the same transformer at the site so doesn't require the upgrades that utility scale needs. And that's nice.

And then the last big benefit over utility scale is that it's kind of in human, well maybe not human but it's within the life of an orange perhaps it can come and go.

So in 23 days I know that utility projects, they can hammer, you know, GE15s in every couple of days. So those can happen really quickly.

But these distributive projects actually can go from the first few spoonful of dirt of excavation up to a fully assembled unit in just a few weeks.

So that's exciting to be able to move projects forward that fast. And when you have a lot of pent-up excitement or frustration around projects it's nice to be able to do something meaningful and visible in that kind of a timeframe.

Again they're big. You know, this is a 600 kilowatt that we put up this winter in Ohio. And it's a 48 meter rotor, so 150, 160 feet across. There's some people out there so you can get a sense of scale. I think I can put a little red dot. There's a person.

And so it's big and you can see it from a few miles away. But you get 6 miles away and they also do kind of fad into the landscape at certain distance. So it's manageable.

Of course I talk about self-limiting cranes and things like that. And what do we do? We pull a 300 ton conventional from Iowa in to do a project in Ohio.

That's not exactly a glowing example of using local talent here. But we tried. The crane was due for Ohio anyway so we got lucky on that one.

Here's the, what I was describing earlier in terms of how the residential, this very small projects, the actual capital cost of the equipment is a much smaller portion than for a utility scaled project and that the commercial falls somewhere in-between.

And again the difference between commercial and utility is that to a large degree the balance of plant and the construction efforts are handled by someone local.

In this picture here's a 400 KW that we did in Ohio. And you can see there's a small hydraulic crane that's definitely coming out of Cleveland and not, you know, Chicago for example, or Richmond.

And again it's a local electrician who's doing it. It's a local excavator who's bringing his excavator out to do the pad dig and kind of stuff. So it's kind of nice to be able to use the local talent.

We did bring in this specific project a commissioner from South Dakota out of EMS. But generally speaking most of the heavy lifting is done by local folks. And so you're maximizing the economic impacts to that degree which is kind of fun.

So talking about what's kind of happened, what it looks like from, well the inside looking out or the outside looking in in the renewable energy marketplace, what's been fun is to watch how utilities have really changed their perspective and their behavior around utility scale wind.

Originally there was some very cautious arm's-length kind of observation of these early projects going in.

California had done its thing. Nobody really knew what that was about because it just was insane. There was so many turbines going in that it just - it's hard to relate that to the rest of the country.

But, you know, around the turn of the century you start to see a lot of these, you know, Buffalo Ridge, or Stone Lake kind of projects that are out there that are getting some traction.

You get some Columbia River projects and people start to actually see these projects gain legs and go for a really nice walk.

And so now you're seeing people like Sunflower, Midwest and others who are actually, you know, in the turbines. It's exciting for them. And they're like yes, why wouldn't we owe them turbines?

So there's this general movement from the PPA and not having a whole lot of skin in the game from that perspective to actually taking some risks and getting some of the benefits because those are better quantified which is nice.

At the other end of the spectrum, the very other end of the spectrum you get these oddball residential projects like SolarCity California that's moving thousands or yes, over 1000, well over 1000 projects in California -- residential projects.

And what they're doing is they're coupling this economy of scale of doing a lot of projects at once. So they've got the design and the implementation dialed in with the retail rate which gives you the right returns.

In California one of the things that kind of got it moving was the notion of this inverted pancake. So the more energy you use the more expensive the energy gets.

And that works really well. You don't have to offset a whole lot of power and have it still be meaningful from the pocketbook.

So for example, in California they didn't have to offset 100% of their load to get 100% of their value out of the solar project. That's kind of revolutionary.

Well now that model has moved into Oregon and Arizona and now Colorado of all places. And so that's interesting to see people, utilities watching people like Solar City and going ah ha that's interesting.

So Duke, you know, there is this flap about Duke buying up leases or getting leases on big box rooftops for solar, for potential solar projects or Helco doing the same thing in Hawaii.

And there was I say flap because people were upset about it. They were saying hey the utilities are edging in on our, you know, distributed renewable space. And that's exactly how it should work is that when it makes sense for the utility to own it and it's a low O&M cost project, that's a good project for utilities to own, you've got to be moving into that space. That's exactly where they belong.

The question is what about commercial scale distributed wind?

And that's where I say the jury is a little bit still out. Because there's a clear demonstration on the technology side that we understand that V47 for

example will work for a decade or more -- 15 years, no problem -- if it's well maintained.

The question is how well does that work in a distributed fashion? There's - I'm over in Europe right now and there's, you know, there's some machines that are distributed and it seems to work but they're also paying 24 euro cents a kilowatt hour.

How does it really work in Ohio or how does it work in Iowa? That's a question. And how do you get utilities to be comfortable with the notion of distributed projects? And that's now we get to the gist of how do you do that, how do you leverage that?

So I look back again and I say stage not or the initial stage T equals zero, you see these utilities such as yourselves sort of, you know, tolerating if you will, these customers who have these crazy notions of putting a turbine up at their facility or at their school.

And you - or different people have different attitudes. And some people are happy about it and some people aren't.

But, you know, I think the advantage is that you have - there are more and more examples where people have made mistakes and learned lessons and you can take advantage of that.

So stage one in my opinion is a publicly owned utilities getting into this space and thinking about is to find some good projects that are attractive that resonated little bit.

And that means that, you know, you probably know who these people are - already are. They're your customers who are saying hey, how do we get a wind turbine? What's it going to be like to install? They're already talking to about it.

So you can go to your customer base or you can go to your state energy office and they'll give you a list of people who are curious about it.

The next thing is to find a partner who will share some of the technical financial risk. Because again, $2 million project, do you really want to experiment with that or do want to find somebody who's willing to take the risk with you?

And if you're able to find somebody to take the risk with you that's a much better deal for your members.

And again you can go to your economic development folks, you can go to your Renewable Energy Associations, you can go to the state energy offices and they'll know who these people are in your area.

And then the advantage of actually brokering, connecting those operators with those projects or those customers is that you get to own, you get to manage that relationship. And you're involved. And you get a piece of the benefits and you learn from it which is good and you own the image.

Stage three is depending on the technology. I described how solar projects with their fairly low O&M requirements are very good candidates for ownership on the utility side even fairly small as long as you can get them in for reasonable cost.

And the question is how does that work for wind? Well again the jury is out. And part of that has to do with the types of incentives that are on the table.

When I think about things moving, you know, my engineering training lives, I remember the ah ha day when I discovered that oh the equation that talks about water migrating through soil and the equation that talks about heat moving through an object and the equation that talks about electricity moving, they're all the same equation.

There's always a driving force, some sort of resistance and there's a result and flow. So when you apply that kind of discipline to the notion of renewables you end up with this what's the driver? What's pushing this? And it's the technology is improving. The policy is definitely driving it.

There's some resistance to it which is physics like the need for transmission or the actual upgrade isn't there for the transformer or whatever it is that there's going to be some permitting hurdles. Like California, you want to put a turbine in, get ready to wait 18 months while you move through your sequel project or process.

And then there's some perception and concerns about the birds, the bats, the flicker, the TVs the all the long litany of perceptual stuff that may or may not be true any of it.

And then if you can move - if you - if the push, if the driving force is enough to get past the resistance, then you have this acceptance adoption and action.

So what's the drivers and how do they really work? Well I think the distributed midscale machine is pretty well proven. There are thousands of these V47s.

I just had a nice meeting with a group today that's getting ready to move over 600 of the Gamesa's out of Spain over the next three years.

So these are, even though the Vestas doesn't really make a V47 anymore and Vestas RRB out of India will import them, there's also hundreds of these machines that are being remanufactured by very reputable firms with two year warranties, et cetera.

So there's a track record and they're becoming available. It's a different world right now in terms of where you can find equipment. And it's in flux which is kind of fun from the technology standpoint.

And then we talk about when does it make sense to vertically integrate? Because policy, you know, when you have a hammer, all your problems look like nails, right?

So from the policy standpoint when the governments are trying to incentivize it what's their hammer? It's money, right? They can incentivize through tax credits and rebates and things like that.

Well tax credits today with the 30% ITC going to treasury grant and you put in accelerated depreciation, you're looking at nearly half of the rebate values where even half of the cost is really tax based. And you can look at clean renewable energy bonds but those are competitive and they're hard to get.

So how does it work for you - for customer owned utilities? They're definitely disadvantaged in this game of the rebates.

So that's when it may make sense regardless of when you do it. It may make sense to always partner with businesses that are able to monetize those kinds of incentives.

And then the last point, and experience isn't really a policy thing. I - that's a formatting error. But I think the last thing to really consider is that when you're looking for partners and you're looking to activate these kind of opportunities it's really important to find partners who are experienced who actually have done this and like a (Dan Jewel) or a (Tom Wind) or somebody out there who understands this stuff more than just the theoretical.

There's so many. And I always look at Massachusetts as the great example of there's so many of feasibility studies in that state right now.

And one of those - one of these - one day when the mass tech collaborative woke up and they said wow we have so many feasibility studies and how many projects do we have in the ground, you know, how many meaningful projects do we have in the ground? And the ratio was completely off.

So talk is cheap. People will talk about having access to capital or access to equipment. But pairing up with partners who have track records who actually have stuff in the ground really done things, that is priceless.

So as you think about this, and again in 20 minutes you can't really - you cannot impart everything you need to know about distributive projects and the economic benefits.

But what you can do is you can - of course you can try to share a little bit of vocabulary and get people thinking.

So I hope this was a reasonable way to kind of wake you up and make you think about something other than just big projects, that the commercial scale project is a viable and lucrative really in today's incentive market. And it can be lucrative for parties on all sides of the equation.

There is as a last note, it's exciting for us because we're beginning to have some productive meaningful conversations with some utilities, ourselves, about how do we come in, how do we do that in step two with the utilities?

How do we come in, enable the utility to provide an on-site commercial scale renewable energy solution for their customers?

And to their customer's perspective it ought to look like the utility's coming in, putting in a wind turbine, have a nice day, here's your utility bill.

And it looks just like it did before but now it's got a little renewable rider on the bottom. And there's a record of what came out of your on-site generation system.

That's what it should look like. And in the background that utility has partners that help them manage the technical and financial risk.

So that's the really exciting time. And when you couple that with the, you know, the higher ratio of funds staying in the local economy, that's an exciting recipe.

And (Ryan), I think that's it. My last slide is a thank you.

(Ryan Harry): All right. Thank you Charles.

Charles Newcomb: Yes.

(Ryan Harry): The - next we have Dave Rich. Mr. Rich has been employed with Nebraska Power District for the past 31 years and is currently serving as NPPD's Renewable Energy Development Manager.

In this position Mr. Rich is responsible for the development and implementation of NPPD's Renewable Energy Strategy. He leads the development of renewable energy facilities and programs to provide cost effective renewable energy to NPPD's resource mix.

Mr. Rich has a Bachelors degree in Electrical Engineering from University of Nebraska in Lincoln and also an MBA from University of Nebraska at (Kern). And with that I'm going to turn it over to Dave.

Dave Rich: Thanks (Ryan). The slides are up here. I will be focusing on the utility scale and our economic development and experience with wind development.

The first slide let's - here we go. Nebraska is unique in that we're the only state with 100% public power. You can see the breakdown there.

For many, many years we've been reported as the sixth best wind potential. (ERAIL) has been updating that study and we've heard that we may be moving to third. We'll see then when the actual results are out.

With the abundant wind though we have installed a relatively small amount as 2009 energy for NPPD.

Approximately 1.5% of our total energy comes from wind. We do have between the hydro we have directly and then through Western Area Power Administration about another 9.6 of hydro.

We are fortunate with our nuclear plant that it does reduce our carbon footprint. Again wind has been a slow to develop in Nebraska in large part because of the very low coal costs that we have today.

This slide shows the various facilities are installed. The NPPD's first farm at Ainsworth, we own this facility.

Municipal Energy Agency in Nebraska owns a 10 megawatt facility in western Nebraska. OPPD and LES own very small facilities, one in the two megawatt range in the eastern part close to their respective areas.

The Elkhorn Ridge Farm which came on in March of 2009 is actually the first power or the wind that we have acquired through a power purchase agreement.

Again, that's a 20 year agreement where we buy the energy and the renewable energy attributes. And they are responsible for the actual operation of that.

Contrary to the discussion by Charles, we found that we are far better off with the power purchase agreement and again for two main reasons.

One, we can allow them to monetize the tax credits that are available to federal level. And two, we also believe that they're in a better position to manage the operational risk.

From our own experience at Ainsworth in operating that farm we have found that we believe that long term that because of the scale of wind that we are in we don't have the leverage over the manufacturers that these larger developers might have.

This next slide shows planned projects for 2010, 2011 and actually one that's being proposed - been postponed to 2012.

The Crofton Hills is an NPPD power purchase agreement that's plan to come on later this year.

The Laredo Ridge NPPD signed a power purchase agreement. That is scheduled also as a 2010 project.

The Petersburg is an Omaha Public Power District scheduled for 2011. The 60 megawatt Flat Water wind project is also an OPPD project scheduled for 2010.

And the Broken Bow project, we just entered into PPA negotiations. But it is scheduled for a 2012 project at this time.

This slide shows the Nebraska Public Power District's goal by 2020. Our board has set a target of 10% renewable energy excluding the hydro that I mentioned earlier to have in place by 2020.

And this shows the additions. Even though we had 80 megawatts of the Elkhorn Ridge, Bloomfield came online in 2009. We shared 40 megawatts of that with the other Nebraska utilities -- Omaha Public Power District, Lincoln Electric System, Municipal Energy Agency of Nebraska, and the city of Grand Island. So the 40 is only our share.

The planned projects for 2010 and then 2012 and then going forward, these are the planned projects that we have in the (SPPQ) for additions in the future years.

Local or long term benefits, again based on our experience, we're seeing one employee for six turbines.

The payments to the land owners, there's a wide range of payments and been paid in the state, anywhere from $3000 to $10,000 per turbine for a year.

And part of that is the range in turbine sizes. We're seeing anywhere from about 50 megawatt turbines on the site and installed here.

And increased taxes received by the local county and schools, that is only true if the wind farm is owned by a private entity.

The wind farms that I had mentioned owned by NPPD mean LES, and OPPD do not pay any local taxes. And then finally the supplies and materials that are purchased during the operations.

So those are the long term benefits. There's always the construction benefits but they're typically over a six month period.

This slide is some national information on compensations for different levels of employees involved in a wind farm.

At NPPD we have as I mentioned, six employees for the 36 turbines. And they're typically in the $63,000 to $72,000 range based on their level of experience at the district.

So again for a wind farm that is located typically in a rural area these are very, very well paid jobs for that local economy.

In addition to the local wind farms, a bigger employment actually is typically associated with the component plants.

We're fortunate here in Nebraska that we have a tower manufacturer KATANA Summit who was making towers in the 50 to 100 meter range.

Again with a little bit of a downturn they have reduced. I think they're at about 100 employees now. They were at close to 200 employees. And they anticipate being back to that once the orders pick back up.

Also President Obama announced that a grant or federal stimulus money was going towards a company, TPI Composites, a blade manufacturer for Grand Island.

That announcement hasn't officially been made yet but again, that would be a very large employer here in the States.

As part of the DOE sent by 2030, 20% wind by 2030 there was an estimate of how much wind would be installed in Nebraska.

Today we have 152 megawatts. By 2030 if the nation is to meet its 20% target it was estimated that 7800 megawatts of wind would be installed in Nebraska to meet that scenario.

And so this slide provides an overview of the direct jobs, total impacts of jobs and the impacts in dollars, in millions of dollars. So again very, very huge impact.

In summary the follow-on with what Charles has said, we have made decisions to locate wind farms, has been a huge morale boost for the local economy.

We had a board meeting last week. We had announced that we had signed a power purchase agreement for the 80 megawatt farm in Petersburg area.

And representatives of the high school superintendent, several from the economic development, a gentleman that managed on the lumberyard in the grocery store all came in to share their appreciation as to how the addition of this 80 megawatt wind farm and OPPD's plans to add an additional 40 megawatts will bring economic vitality back into this area that has seen a downturn.

So wherever you see these 80 megawatts or whatever the size of the farm, the local rural economy really benefits from both the construction phase and then the ongoing term phase.

That's my presentation. And...answer any questions at the end of the presentation Webinar. Back to you (Ryan).

(Ryan Harry): All right. Thank you Dave.

All right next on our agenda is Ron Rebenitsch. Ron is a Manager of Alternative Technologies at Basin Electric.

And he's also responsible for Basin's green and renewable green resources. His primary responsibilities include wind energy and distributed energy resources such as recovered waste heat generation.

Ron is project manager for the wind projects being built by Basin Electric's Prairie winds subsidiaries. Ron is also a board director on the Utility Wind Integration Group also known as UWIG.

UWIG's a national association of researching - national association of researching the issues related to integrating wind energy into the grid.

Ron has a civil engineering degree from North Dakota State University. And he also has a Masters of Business, an MBA from University of South Dakota or sorry, pardon me, University of North Dakota.

He's a registered professional engineer in the states of North Dakota, Colorado, and Wyoming. And with that I'm going to turn it over to Ron.

Ron Rebenitsch: Good morning or good afternoon depending where you're located. I'd like to just get started off with a quick overview of Basin Electric.

We're a wholesale power provider, a co-op of co-ops if you will. We're owned by 130 plus member cooperatives that extend all the way from the Canadian border to the Mexican border.

And I guess more general things related to wind is that we have members in nine of the top 12 wind states in the US. And we're right down the wind alley.

Moving to the next slide, the total resources that we have here right now is that we're some - we're about 643 megawatts. And that's going up slightly as we speak here.

But we've got 120 megawatts of wind that we just completed up here in North Dakota. I was Project Developer on that. And we were able to take that from start of construction in August 18 to synchronization of the last turbine 27 hours before the January 1 deadline.

So it's a very stressful time, bad weather. But we threw a lot of equipment at it. And we were able to get that project completed and it's now operating.

But all told we've got a combination of wind that we either own or are developing to own. And then we are also - I have negotiated a number of power purchase agreements, also have some waste heat recovery that we developed eight sites along the Northern border pipeline.

This next slide will give you some idea of the locations of the wind projects. And what I'd had listed in the earlier slide was a larger project size.

We also have over 80 small consumer turbines that are under 100 kilowatt size. We buy whatever gets delivered to the grid.

Typically they use the generator to service their own needs first and then what remains they put out on the grid.

And as the wholesale power provider we will actually reimburse our member co-ops at a defined rate before that power gets delivered to the grid.

Local benefits for wind have been touched on already. Land owner leases, Randy Hauck will talk a little bit more about that.

We're looking at 25 to 50 years. We do have an annual escalation in our releases.

And one of the things that doesn't get mentioned very much -- and this is important to our land owners out in some reasons regions -- and that is the improved road access of being able to cruise down the turbine road with a truckload of grain.

It's a lot easier than trying to bring it across the field or around mud holes, et cetera. So that's a benefit for the landowners.

Property taxes there's - this goes to the local benefits as much as the - or the employment of North Dakota. We're talking eight permanent jobs this 120 megawatts that we've just completed.

We've got 151 megawatts that I'm developing in South Dakota that we're looking at 12 permanent jobs is our current estimate.

Construction, we see somewhere between 200 and 400 jobs for a project of this size depending on how concentrated your schedule gets.

The 4-1/2 months I just mentioned for an early project is really driven by the fact that we - our permits were delayed from - or the environmental permitting was delayed and so we got a very late start. We still have the end date for tax reasons that we had to meet.

And I mentioned the local ripple effect or that's been mentioned before. So I won't go into details on that.

Some of the challenges and impacts. When we're laying out a wind project in the, you know, there's a lot of filters that filter you down to sites that will work.

And once you've picked a site you then have to do a lot of detailed design of make sure that you've stayed back from your landowners so that you don't raise noise issues. Or probably a more difficult one is shadow flicker particularly at our latitudes. In the wintertime a tall turbine will cast a long shadow.

And we need to make sure that we've located our turbines such that we won't be putting a lot of shadow flicker.

We emit what's normally considered acceptable in Europe. There's a couple minutes at a few locations where they do have some shadow flicker early in the morning or late in the evening. But this is just for a few days and for a few minutes during the day.

Traffic during construction, you know, if you're looking at a project, on a big project you're going to have a lot of traffic. You need to prepare your land owners for that.

You also need to do deal very strictly with your contractor to make sure he maintains the roads in good shape and that he leaves them in good shape.

Just a couple months ago I was called to the state legislator to report to the committee at the legislator to - on how our wind is progressing. And one of

the questions I got was how are you going to leave the roads? Because there have been some wind projects that have left the roads in worse condition.

But we have a policy and my personal commitment that we will leave the roads in as good or better condition than we found them. That's what we're doing up at Minot. That's what we intend to do in our South Dakota project.

Viewscape is an issue that is coming up from time to time. We're in a relatively remote area so it's not as large an issue but it is something that if you are looking at a project, particularly if you're close to a municipality that - or a town and you're trying to build something close by, that's going to be an issue you want to address up front and make sure that you have good answers.

Historical and cultural issues, if you're in the West area here most of this is historical hunting grounds for a variety of tribes.

And we have a federal access for our project, the interconnection of a - the federal transmission system. That brought the National Environmental Policy Act. That brought the - all the issues that come with it along with a Section 106 consultation.

We have to work with 15 tribes in the - that had historical roots in the region. And they've been down - they've locked the site. They've brought in archaeologists which we funded and identified probably well over 100 sites of what they consider to be a traditional cultural property.

It's making design very difficult to route around this. But it's something that we are doing and we will continue to do.

Setback requirements, as we worked through the project up here in North Dakota, setbacks increased twice. And so we've gone - it went from 750 to 1000 to 1400 feet that we set back from any receptors or inhabited houses.

So we are working on those. We were able to work around those. But you're building a project, start off knowing that your setbacks are going to be quite a distance.

The next area is, you know, how - what is Basin's resource goal? We had a 10% goal that was set by our membership. And this was 10% of our peak demand. So this is a nameplate capacity rating, not an energy rating.

We're well beyond that. We're going to be between 20% and 25% by the end of next year. And so we're well along to meeting any portfolio standards that might come along.

And to put it rather bluntly, we've probably built as much as we're going to build for a while because we've built so much and we had 650 megawatts for a system with a 2500 to 2600 megawatt peak at this time.

So we're - we've got a lot of renewables on our system right now. And we need to address that and make sure that we can get it well integrated.

With that in mind we're looking at, you know, what was the best way to go forward? And we actually took three different - a three-pronged approach. We started off with a power purchase agreement.

We also developed a couple of small wind project ourselves in conjunction with our local members, get our feet wet, get some idea of what the - what's involved in building a wind project.

And having done a lot of construction in my past I found that wind projects are a little bit of a different animal but well principles are the same.

But we - of our wind, roughly half of it is power purchase agreements, mostly with (Next Air) Resources. They offered us the best price.

We found through development we were able to get very good pricing, very good costs out of these projects.

And after their taxes we're probably in the - between the 3 cent and 4 cent per kilowatt hour range in our next costs to our members which is very reasonable.

But if you look at the fact that our typical retail rate for our members in the - say the North Dakota, South Dakota area is around 8 cents to 8-1/2 cents, even that 3 cent to 4 cent wind rate for basically what's an energy displacer, a fuel displacer is still an impact to our rates.

But our goal here with ownership is to control our destiny. And Basin Electric is fortunate enough to have a subsidiary that has some tax appetite. So we were able to utilize that tax appetite.

But we also in setting our rates, you know, what we'll pay for projects large or small as we are trying to avoid subsidizing affluent investors at the expense of other consumers.

And to do that, you know, we've determined what is a competitive price for wind and what we're willing to pay.

And with that the pricing benchmarks we're looking at are large projects with economy of scale of - you certainly need to use the tax benefits in order to keep the price down. And in a power purchase agreement we expect to share in the benefits of those tax benefits.

If we're providing the market and we can build it our self for a certain price we can't expect our member consumers to pay a much higher price for somebody else, particularly if the tax benefits (are) bringing that price down.

With small projects or any projects you have to address the interconnection costs.

And again, our expectation is that the interconnection costs are either reflected in the price of what we're buying or they need to be addressed by the person putting in the generator.

The same thing goes for transmission and risk allocation. Who takes the risk if the control area operator shuts down the wind - shuts down a transmission line for a period of time due to an ice storm? Who absorbs that? So those are the things that need to be determined and allocated up front.

One of the things that we hear about net metering. I get calls from folks on a regular basis saying, you know, I'm paying you 8 cents. You should pay me 8 cents.

It's hard to explain to them that out of that 8 cents, now that's a bundled rate. And out of that 8 cents only a small portion of it is fuel.

If you take a ton of Wyoming coal at $10 or $15 a ton it'll produce about 1700 kilowatt hours. The fuel costs is essentially less than a penny per kilowatt power.

If you look at the overall power supply, and over the - over half of the cost of power supply in our region is the wires, the transmission and distribution system. It’s not electricity.

So just a little point I want to make here is that when we make an offer of 4, roughly 4 cents per kilowatt hour of - for wind energy, that’s higher than our own costs. And it also reflects the fact that it’s much higher than our avoided cost as well.

One thing to keep in mind on a wind project is that taxes drive the economics. So there’s just no other way around it.

If you take a 2.1 cent production tax credit, here’s how the value of it really works out.

If you’re a wealthy investor and I give you an income of 3.2 cents you’re going to pay 1.1 cent per kilowatt hour or on that month that I have just paid you. It leaves you with a net of 2.1 cents which is comparable to the 2.1 cent after tax credit.

What this really means is that the value of that production tax credit after tax is at 3.2 cents.

Another way to look at that is that if I'm buying from an investor, if he didn't have that production tax credit he would need to charge me 3.2 cents more

than he’s paying me today or that I'm paying him today. And that drives the cost down.

So the production tax credit is you get a bigger bang for the buck than just the 2.1 cent per kilowatt hour. Now this of course assumes that you have other taxable income to be sheltered.

And to put that in perspective let’s take a look at the depreciation. If you've got a project that’s going to cost you say $2 million to $2.3 million a megawatt and you can accelerate the depreciation over say 5-1/2 years under the modified accelerated cost recovery that the IRS directs, the depreciation value is somewhere around $15 to $20 a megawatt hour or 1. 5 cents to 2 cents a kilowatt hour.

The production tax credit that I talked about earlier is on a ten year basis. And if you levelize that over a 20 year life of a wind project it’s between 1.1 cents to 1.4 cents a kilowatt hour.

So the point I'm making here is that taxes drive the economics of a wind project. And your depreciation is even larger than the production tax credit as far as an impact to the bottom line.

Now with that there’s a number of different financing options to build a project. And I was thinking here from the co-op perspective. You know, typically coops don't have a tax appetite. So how do you build a wind project and do it without doing a power purchase agreement?

We’re all looking to control our own destiny. And if you do a 15 year power purchase agreement at 15 years you’re back at the mercy of the market.

If you own the project in 15 years you're paying down your debt and your project looks better all the time.

But there's three different options. The sale-leaseback, you sell it to somebody and you lease it back and they take the tax benefit. That leaves you at risk at the end of the project for the fair market value of the project.

There's a tax equity flip. And I'm going to talk a little bit more about that. And then the area where most people are going today, and that's the 30% treasury grant.

Starting off with the passive tax equity flip, the way that works is the coop can be a project developer and you find a tax investor that's looking for a tax shelter.

The coop could put in less than 50% of the cost of the project, the tax investor put in greater than 50%.

You form a project, project partnership. And that project partnership is going to have two buckets of value. The first bucket is the tax benefits and the second bucket is the revenue from the product that you're producing, the kilowatt hours that are produced. And those two buckets need to be divided.

So the next slide shows how you can do this in a tax partnership. The coop would take 1% of the production tax credits and 1% of the tax losses and any residual after the tax investor.

And this is just for the first ten years. The tax investor takes 99% of the tax credits, 99% of the tax losses and then whatever revenue from the power purchase agreement that's needed to reach his defined rate of return.

This is for the first ten years. And that can vary from - to any number that you want. But the ten years has been pretty well common number because that's the length of the production tax credits.

After the ten years or upon reaching the internal rate of return target of the tax investor the revenue split, who gets what can be varied. And that's the way a partnership works. You can decide who gets what in a partnership.

At that point in time though the production tax credits and accelerated depreciation exhausted. And what remains typically is the revenue from the power purchase agreement. The coop would get 95% of that as the partner in the partnership and the tax investor would get 5%.

At that point in time too, the coop could buy out the tax investor at fair market value if that's been something that's been defined.

The key is at that after the ten year flip the tax investor has just a strong residual value and the coop is the primary owner.

What's happened over the last couple years is that that particular model has been hit by a recession. There's not a lot of investors with a lot of tax appetite out there.

Congress has done two things. They've extended the Production Tax Credit to December 31, 2013. And wait a second, that should be December 31, 2012. That's an error on my part.

And they've also offered an alternative to the Production Tax Credit. In the stimulus bill they provided for a 30% treasury grant.

The way the 30% treasury grants is that the federal government will reimburse you 30% of a project cost excluding transmission. You have to begin construction in 2010.

And a possible option if you can't actually break ground because of permitting, if you've purchased the turbines and incurred at least 5% of the costs that might give you an out.

Construction has to be complete by the end of 2012. There's a depreciation allowance reduced by half of a grant. So that depreciation I talked about earlier is going to be reduced somewhat. You actually only get 85% of your depreciation instead of 100%.

And then they wrote in the law that coops are not eligible to receive this. And there's ways around that. And I'm not giving tax advice here, legal advice here. But they've - something called a blocker C corporation.

Basically if you own a wholly-owned subsidiary that is a for-profit subsidiary, that subsidiary could qualify.

And essentially what Basin Electric has is the Prairie Winds subsidiaries for each of our projects. They're wholly-owned for-profit subsidiaries.

You know, it might offer a possible model for coops, but talk to your tax attorney. Talk to your legal folks before you look too seriously at this. Again, emphasize I'm an engineer, not an accountant or an attorney.

To be real though a project needs the following. It meets financing. You've got to figure out how you're going to finance this.

Rural utilities service is one option of - and could possibly even work with a tax equity partner where they put up some of the funding, you put up some of the funding.

Transmission is probably the biggest holdup. We've got the wind out here but we just don't have any way to export it. Transmission has probably stopped more wind than anything else.

You need a market for the power. And that's going to be reflective of what is your cost of that power. So to keep the costs down you can usually find a market.

But the market in the MISO area for instance, the Midwest Independent System Operator, the market has pretty much collapsed over the last year.

Turbans used to be an issue, trying to get turbines. You had to be talking 100 megawatts per minimum before someone like GE would talk to you. All the turbine manufacturers now a lot more open to small projects.

Environmental permits, this is a major issue. Don't get locked into a schedule that you can't extend because quite simply if you've got turbines coming, don't count on the fact that your environmental permits are going to be completed and done.

There's discussion with the Fish & Wildlife Service to look for two and three years of environmental monitoring before they'll consider allowing something to go forward where there's a potential for an endangered species.

So they're currently working on a variety of issues at the Fish & Wildlife Service level. You know, don't count on things going rapidly. They're doing what they can. But the Fish & Wildlife Service is also under some very direct constraints from Congress as to the national laws and the rules that have been established.

A lot of the rules have been established by litigation so they're careful not to get into that if they don't have to.

Here I put in just a comparison of, you know, a number of land owners are looking at trying to build their own projects. And I strongly encourage that.

But, you know, to try to put things in perspective, if you can find somebody else to build the project for you, there's some value to that from a risk side.

I've listed the various risks on the left-hand side the project developer takes. And these are not inconsequential risks.

To put up a met tower is $25,000 by the time you figure the rating of the tower, the cell phone service, et cetera, $25,000 per met tower. If you've got a 100 megawatt project you should have at least three if not five met towers.

Engineering, before you know you've got a project you'll spend $100,000 in engineering in a heartbeat.

Permitting risk, you know, the cost of an environmental impact statement is probably around $1 million. The cost of an environmental analysis is half that. But your timeframe is probably very similar.

And environmental analysis should be shorter but we're finding that it's not really.

The cost of a turbine on average we're seeing between $3 million and $5 million depending on the size of the turbine wherefrom a land owner's perspective of $4000 to $6000 per turbine per year is probably the best most profitable crop you can raise.

So, you know, when you do have developers come in, I've got a developer now, I've developed four projects, two small ones and two large ones, questions to ask, you know, have they ever completed a project?

We have a lot of developers running around the country with their rent a car and a clipboard, they're going to develop a project. But they've never developed one and don't have any financing to do so.

And financing, you know, some of the cases they're asking the land owners to help them fund the dream. And we're seeing cases where landowners have tied up their land and then actually not able to build or to lease their land to a real developer that comes along later.

Transmission, that's one of those things that people think about last. You should think about it first. It takes months if not years to process interconnection requests.

And you want to know if you can put a wind project there before you invest a lot of money because the transmission system is severely (unintelligible).

Market, you know, do you have a customer for the power? Again that relates back to the cost. Can you build the project?

Environment, we run into a number of sensitive issues. After we started our project the Fish & Wildlife Service eventually came out with a broadband all the way from Texas to Canada for the whooping crane migration corridor.

And we had to enter into quite a bit of conservation offsets to compensate for that because we're building a wind project in the middle of this 200 mile wide corridor. And it comes right up the core of the wind of the US. So it was something to be aware of and be careful for.

Then cost. You know, are your cost estimates realistic? But make sure you've got schedules that can accept some extensions and make sure that you've got your costs covered because there's always some things that you haven't seen before.

But with that I would want to summarize that, you know, one of the things I get approached on is community wind. And Basin Electric is working with a number of groups to try to support a community wind project or various projects.

And I would also add that as a coop I think we're probably the ultimate in community wind. Because when we build the project, the benefits of that project go to all of our consumers and not just a few affluent investors. It goes to all of the consumers.

With that I will turn this over to the next speaker. And just want to mention that Randy Hauck is one of our member - works for Verendrye Electric, one of our members. And I very much appreciate all the support as a local member that they've provided to this project.

(Ryan Harry): All right, thank you Ron. With that I'd like to welcome Randy Hauck. Randy currently serves as the Member of Energy Services Manager at Verendrye Electric Cooperative in Velva, North Dakota.

The Department Manager, his responsibilities include marketing communications, member programs, billing and collections.

Randy has an agriculture mechanization degree from North Dakota State University. And he is a 25 year employee of Verendrye.

And with that I'm going to turn it over to Randy.

Randy Hauck: Thank you (Ryan). Let's get started here. Okay first of all a little bit about Verendrye.

We're a distribution cooperative. We're the retail end of the power industry and we are part of a coop family. We're one of six coops that own Central Power Cooperative who owns and operates the transmission system in our area.

And we're one of 135 cooperatives that Ron talked about at (Owens) Basin Electric who is our generation source.

Basin provides about 80% of our energy. The other 20% comes from WAPA, Western Area Power Administration. And they provide our hydro-allocation.

We serve roughly 12,000 meters, 450 million kilowatt hours, a little over $30 million in revenue.

The reason we actually have that many meters is because we're fortunate to serve around the city of Minot. The city of Minot's a community of about 40,000 on the eastern edge of the oil boom in North Dakota.

And about half of our membership and half of our sales it's right around the city of Minot.

And we also serve a large Air Force base which is our biggest customer.

We do have a lot of plants. You know, we serve 134 townships. So we end up with a lot of miles of line, 4400 miles of line.

If you take them two or four townships right around the city of Minot out of the equation we only average about 1 meter per mile line. So we're very, very rural.

To supply that service out there we have 26 distribution subs served by four transmission substations with a little over 70 million in investment.

This is a map of our service area. And I would like you to point out the map up in the corner of the state of North Dakota.

You can see we're right in the north central North Dakota. And the reason I want to point that out is for the next map which is a wind energy resource for the state of North Dakota.

The dark blue area is the test wind resource in the state. And you can see kind of in the middle of the map there's a town called Minot. Right south of that there's a ridge that runs through our service area. It's the Continental Divide

Ridge for the North South flow in the continental North America. And it's a very good wind resource.

We do happen to have three commercial scale wind farms in our service area. Minot Wind which is a base and electric facility. Minot Wind One went on about eight to ten years ago with two turbines.

And then as part of their project last year they added three more turbines to that site, a total of a little over 7 megawatts.

We also have developed a wind farm in our service area which is the Excel Energy Project of 18 turbines, 12 megawatts. There's 660 kilowatt turbines on that farm.

Excel Energy is the major supplier for the city of Minot.

And then the project that Ron was talking about, the Ferry Winds project, 77 turbines and 115 megawatts.

Perry Winds project which happened last year, last half of the year was a boon to the area. The site is about 15 miles south of the city of Minot.

So there was a lot of construction workers that moved into the area. They built up the motels. They built up the restaurants in Minot, over 300 workers for that five month period.

There was a opportunity from - for some local subcontractors to do a large part of this work. One of them was the Ready Mix Company. They used over 25,000 yards of concrete which was supplied by a local contractor.

The thing we like is that the footprint of the Perry Winds project is quite large. And there's over 40 landowners that are receiving lease payments of approximately $4000 per year per turbine with the escalator.

And this area that this farm is located on is a - it's not a high agriculture area. I mean it's typically grassland. So the productivity of the land isn't like it is in some other areas.

Another big item is property tax revenue. The state of North Dakota, especially the school districts rely very heavily on property tax.

In this case there's three school districts that butt up to this wind farm. And the new tax revenue from the wind farm's going to be about $4000 per year.

These are very rural schools. I would guess the K-12 enrollment is less than 250 kids in each of these schools. So anytime they get that kind of influx of property tax money it's a big deal for them. And of course the eight full-time jobs that would be created.

Some things that affect Verendrye directly as a distribution cooperative, yes there is some new sales. You know, they built the maintenance buildings, yes for some substation buildings that we serve. And a bigger item is the station power to the wind farm itself.

A morning like today it's 5 below up here in lovely northern North Dakota and there's no wind. So the wind farm's not producing any wind. It's using energy today to keep the turbines warm.

There's also an opportunity since we're in the distribution system to do contract maintenance work on the collector system, things like line locates, fault locations, stuff we do on a day to day basis.

The local PR exposure with having a wind farm in your backyard is obviously there. It also helps us with our members. When you see it in your backyard it promotes that hey, we are using renewables as part of our energy mix.

And it's a great opportunity from our standpoint since it's so close to take members out there and actually tour the farm site.

Some other items that are happening in our area, since this ridge runs through about 60 miles to 80 miles of our area, there are a lot of wind developers out there. And last time I counted I think there's eight to ten different wind developers that are leasing land in our service area.

Some of them are starting to sign them up for a long-term lease for little or nothing on the gamble that they can sell these leases to another developer. And some of them are serious where they're trying to figure out how to actually build a farm.

Very few though are installing met towers, monitoring the wind speed. And I don't know of any of them that have a purchase power agreement or have figured out their transmission access.

So the downside of having this tremendous wind resource south of us is that it does create a whole bunch of hype. But a lot of times that whole bunch of hype doesn't lead into a new wind farm being built.

I guess that's the end of my presentation (Ryan).

(Ryan Harry): All right, thank you Randy. All right, and that concludes the presentation part of this Webinar.

We have a couple of questions in the queue. The first one was a question, can you get a tax credit for refurbished V47? And I guess that was for Charles.

Charles Newcomb: The answer is if - that's a really good question actually. It seems to be yes. Our tax accountants -- and I'm not a tax accountant -- and I - and that's not my world. But our tax accountant has indeed approved us when we create a special-purpose entity to go ahead. And although the markup is de minimis, it's still a piece of equipment. It still costs money.

So the battle is about what can you market up? And it's like 5% over the pure cost. So that's - we're fighting with our guy there. But he has said yes, this is eligible for the PTC grant.

Because - and I think it has to do with the transaction from when our company develops a project and then sells it to another entity so that entity can claim the PTC.

(Ryan Harry): Okay. All right, I'd like to remind everybody that's listening to this that we're taking the questions as entered text. I see somebody that has raised their hand.

But if you could just instead of raising your hand if you could just enter in the question that you have. Thanks.

For the next question it's about the 1400 foot setback that I believe Ron was talking about.

The question is is this a state requirement? And then the eye sighting board ruled rules don't kick in until the project exceeds 5 megawatts, you know, relative to Ohio compared to North Dakota.

Is there similar constraints to the setback requirement in North Dakota? You know, otherwise distributed projects may be dead on arrival.

Are you going to address that Ron?

Ron Rebenitsch: Well I can...

(Ryan Harry): Did you get any part of that?

Ron Rebenitsch: Yes I'll address that from a North Dakota standpoint.

We are working in two states. In North Dakota it's kind of an unwritten rule that you have to find out. When they review your application they ask you are you - how far are you back?

And if you're less than 1400 feet they've got a problem with it. But it's not part of the formal rules system.

In South Dakota we've got a comparable situation. But there the number is 1000. I'm expecting that to increase to 1400 feet.

There's nothing magic about either of those numbers. There's so much dependent with the setback as to what type of house you're near. It might be a seasonal hunting lodge or a permanent residence or an apartment building. So there's going to be different levels.

Plus the fact if you've got a shelter built around the house between the house and the wind turbine, that's going to mitigate some of your noise.

We are striving for less than 45 decibels at any receptor at any house. And that to me is a far better criteria than distance. But distance is something that's easy to establish and identify.

(Ryan Harry): Okay, thank you. All right, third question is some centers said they use an escalator for lease payments. And question's wondering what the source of the escalator is. Is it something like the consumer price index?

Ron Rebenitsch: This is Ron. That's been a debate we've had. We have just locked in a firm escalator of 2% per year reflective of just the simple fact that if you buy a piece of land or you buy any asset, it might increase, it might decrease in value.

We put in the 2% more or less as an accommodating adjustment rather than go with a higher upfront payment or a lower upfront payment and a higher escalator. It's all net present value.

Dave Rich: This is Dave Rich. In the power purchase agreement that we've entered we have stipulated a 2-1/2% annual increase in the pricing there. And I believe then that the developer has used that same 2-1/2% escalation in their land lease payments.

Charles Newcomb: And this is Charles. In our power purchase agreements with our customers we use a 3-1/2 escalator which is sort of an historic CPI over the recent past although it's kind of fallen apart this last year.

(Ryan Harry): Okay.

There is one question for some clarification on the investment tax credit grant. The - if you take the investment tax credit grant, this grant takes away half the depreciation associated with the project.

You know, if that's the case can you still benefit from the remaining depreciation on the project?

Rob Rebenitsch: Perhaps I need to clarify that. The - what - if you take 30%, the grant is reduced by half of the grant, in other words, 15%. So you still have 85% of the depreciation remaining that you can get value out of.

(Ryan Harry): Okay. And I had a question for Charles about the wind turbines that you're using for the distributed generation.

I've heard that there's been problems with I guess availability of new turbines. Is there something that's changing, you know, in that near 1 megawatt range?

Charles Newcomb: Yes, it's an exciting time now. Four years ago I guess when - I think it's around four years ago when the last V47s were pulled off of a product line for Vestas -- maybe it was five years ago -- there was kind of a bit of a dry spell.

But about two years ago, three years ago Free Breeze out of Ontario I think it is, began importing. And that's kind of a loose term. But they imported one unit and they really haven't done a whole lot.

But there's been two or three additional Vestas RRB units that have come out of India. And they're a non-OptiSlip version. So they're a V47 without OptiSlip meaning they run at 600 kilowatt.

There's also an (Alarcon) unit that's imported by Reflecting Blue Technologies out of Las Vegas. And they've got the turbo winds, (Alarcon) turbine winds. It's kind of an off brand but it's a pretty standard piece of equipment with full span active pitch control.

And I guess it's got an (Alarcon) gearbox. But it's got a Siemens generator and partner hydraulics and all that. So it's standard components. And again, that's also out of India and now being imported.

And I know that like Aeronautica is supposed to be spinning up manufacturing in New Hampshire this spring into the summer with a 750. And there's some talk actually with various folks talking about resurrecting the V27 even.

So there's a - it's a very different landscape today than it was 18 or 24 months ago for sure I think.

(Ryan Harry): Okay, thank you. I think that does it for the questions. I'd like to thank everybody for joining in on the Webinar. I'd especially like to thank the presenters for presenting -- great information.

Again, if you have any further questions you can contact (Bob Putnam) at his email address or you can give him a call at 315-751-2638.

And definitely don't forget to check out www.repartners.org. You can get the recording of this Webinar and other Webinars that have been presented within this year's series and also in past years series.

And for signing up for the upcoming Webinars, check out www.windWebinars.gov tools.us.

And with that again, thank you very much.

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