

**BZA MINUTES****FEBRUARY 23, 2009**

Members present: Bill Davis, James Trautman, Larry Amspaugh, Charles Addington, Dale Clevenger, Lee Deguise.

Members absent: Christy Starbuck.

Staff present: Cathy Flatter, Executive Director, Jamie Stump, Recording Secretary.

Legal representation: Bob Oliver.

Others present: See attached sheet.

The meeting was called to order by James Trautman at 7 PM.

J. Trautman: First thing on the agenda is to approve the minutes of the November 17<sup>th</sup> meeting, 2008.

D. Clevenger: I make a motion to approve the minutes without reading.

C. Addington: Second.

J. Trautman: It has been moved and second. All those in favor signify by saying aye. "Ayes". Opposed (none). Next on the agenda is the election of a chairman.

C. Addington: Christy Starbuck. I nominate Christy.

J. Trautman: I have a nomination for Christy Starbuck.

C. Flatter: I don't know.

B. Davis: I don't think she wants to do it.

L. Amspaugh: Oh ok.

B. Davis: I will do it.

C. Addington: I nominate Jim Trautman.

D. Clevenger: I second that.

J. Trautman: There is a nomination for Bill first.

C. Addington: I didn't know that Bill was in there.

J. Trautman: I second that one. I move we close the nominations.

C. Flatter: Is that allowed?

B. Oliver: The chair can't close the nominations.

C. Addington: I didn't hear Bill. Sorry Bill.

J. Trautman: There is a motion and a second for Bill and there is a motion and a second for Christy Starbuck.

L. Amspaugh: I say we close the nominations.

D. Clevenger: I second that.

J. Trautman: All those in favor signify by saying aye. "Ayes". Opposed (none). That was just to close the nominations. Now we are going to vote. All those in favor of Christy Starbuck....

B. Davis: Hold on, I don't think Christy wants to do it.

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J. Trautman: Okay then. All those in favor of Bill signify by saying aye. "Ayes". Opposed (none). I have to do the Vice Chairman. I would take nominations now for Vice Chairman.

D. Clevenger: Let's try Christy on that.

B. Davis: I second that.

J. Trautman: Are there any other nominations? Is there a motion to close nominations?

D. Clevenger: So moved.

C. Addington: Second.

J. Trautman: All those in favor signify by saying aye. "Ayes". Opposed (none). Christy Starbuck for Vice Chairman, all those in favor signify by saying aye. "Ayes". Opposed (none). Now we have to, is there anybody here that wants to be an attorney?

D. Clevenger: I make the motion that we retain the attorney we have.

C. Addington: Second.

J. Trautman: We have a motion and a second to retain the attorney we have. All those in favor signify by saying aye. "Ayes". Opposed (none). You are still our attorney.

B. Oliver: Thank you.

C. Flatter: Do you happen to have with you your lay out for the meeting? What the chairman needs to say?

J. Trautman: No I don't.

B. Davis: Well then you are stuck tonight.

J. Trautman: No, you know what to say you have been here as long as I have.

B. Davis: We will wing it.

## BZA 2009-1-CU (Randolph Southern School, Lynn)

Chr. Davis: Okay we will call BZA 2009-1-CU, Randolph Southern School Corporation. Please come forward. Jamie has everyone received published document?

J. Stump: Yes.

Chr. Davis: And received them back in a timely manner?

J. Stump: Yes.

Chr. Davis: This is a recorded hearing so if you would state your name and tell us what you would like to do.

M. Necessary: My name is Mike Necessary, I am Superintendent of Randolph Southern. We are here to talk to you about having a turbine at our location for wind energy.

T. Kuykendall: I am Tom Kuykendall for Performance Services. We are the engineering firm that is assisting Randolph Southern with their wind energy project.

Chr. Davis: We've seen you before haven't we?

T. Kuykendall: Yes you have. It's been a little while though. I think I'll provide an overview of kind of the project in general because I see a lot of faces that weren't here for another school corporation we were looking into as well.

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T. Kuykendall: Our company, Performance Services, primarily does guaranteed savings contracts, which are school improvement projects primarily through hvac improvements, broilers, chillers, controls, lighting, upgrades and things of that nature and over the last two years we've been investigating renewable energy projects to help schools generate and save money on utility cost. In our research, some of our past projects we've worked with Randolph Southern and schools in Randolph County and we've put together a model that will allow us to install a full scale wind turbine to help offset energy use within the Randolph Southern, all the facilities in Randolph Southern. As far as to date, we have sited a location that you will see in your packet there and we have received FAA approval at that location. There are a lot of opportunities we like at that site and we will go through some of those reasons, I guess, as we progress here. We are still in the initial phases of actually getting through this process with the Randolph Southern School Board and there are a lot of hoops to jump through and this is one of those processes to make sure that we are on the right path in doing what is best for the community. We are here tonight to kind of review that location and kind of go over any further details or questions that you may have as well. This process I would say began last fall, probably in October of 2008 and we've been presenting and gathering further information about this project and this location since that point in time.

M. Necessary: From the schools perspective, first of all, thank you for your time this evening to hear us out. When we saw that Randolph Eastern.....

B. Oliver: Mike, I am sorry, just identify yourself when you are speaking.

M. Necessary: Oh okay. Again, Mike Necessary, Randolph Southern Superintendent. From the schools perspective last fall when we saw the newspaper that Randolph Eastern was pursuing this wind energy project, the bells just went off and I thought that this is something that we need to investigate. Lynn, Indiana sits in a perfect position as far as wind energy and when we are thinking about renewable energy the cost savings could be dramatic for a school and for a small school we are trying to stay, our school Randolph Southern not be forced into consolidation, this might be another avenue to help us out financially. Not only that but when you think about science and curriculum, if you have wind energy it might promote some integrated curriculum that students would get involved with science and so forth. This so called green energy just came to mind and it would be such a waste not to investigate this. Like Tony said, Performance Services once I made contact with Cathy Stephens, Superintendent of Randolph Eastern, she gave me Tony's name and I gave Tony a call and since last fall we have been going through the process having school board meetings and so forth, going through some possibilities and so at this time we are here. We are hoping that there might be some type of encouragement and grant money with President Obama, who's been very much involved with, in his campaign platform about green energy and renewable energy, so it is not that it is just for today we are trying to think about the future and again, 10 – 25 years, if this happens and this all comes to pass, who knows what the cost of energy is going to be at that time and have something that is going to produce it right on your spot. It seems to make a lot of sense. Sorry I ramble a little bit. I am trying to give you some background.

D. Clevenger: How tall?

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T. Kuykendall: This is Tony with Performance Services. The height of the machine will be 330 feet tall. It would be a one megawatt system. If I may add to that further, before the questions, the location that we have sited on the Randolph Southern School campus, you've probably seen some of the distances to the school itself and the surrounding home owners, we've decided on that location for a few reasons. One is it is going to be the most cost effective location for us to be able to tie into the schools transformers. The actual cost to run cable and trenches is fairly significant. We've also sited it out between the two fields, if you have noticed on that sheet as well. It is within 400 feet of the school, 500 feet of the southern residents as well and as far as any other setbacks, that is why we are here tonight, there is not a wind ordinance in place currently and most of those, I think it is being proposed and could change in time but based on the opportunities and the cost impact, we've selected that location. We are still considering alternates but that location gives us lots of opportunity to do what the goal of this project is, which is to generate revenue and to also enrich the schools curriculum as well. Part of what our company does with the schools, we have really nice energy software packages that would be a web base system that would pull all of the logged and stored data as well as life streaming data that they could use within the classroom. It should be a really nice opportunity with the science and math classes to be able to utilize that as well.

D. Clevenger: How big a base? How wide?

T. Kuykendall: The actual, we would like to put a fence around the actual base of the turbine itself.....

D. Clevenger: Right but I mean the base of your tower.....

T. Kuykendall: You are probably looking at a base that is actually, most of it is underground, but you are probably looking at a base of maybe 30 x 30 feet.

Chr. Davis: So how does this compare with Union City's?

T. Kuykendall: Very similar. Part of the process is actually locating the exact manufacturer, because when we met with Randolph Eastern there were multiple manufacturers that we were looking at to pursue their project. As far as the height, very similar in height but it would still be a little bit larger generator instead of a 600 or 750 kw, this is a 1,000 kw or a one megawatt machine. Height wise, actually this is a two blade wind generator instead of a three blade. It is just the best value and for your wind regime it is just going to be more efficient than some of the other models that are available.

L. Deguise: Is the 330 feet tall at the top of the blade or the top of the tower?

T. Kuykendall: From the base to the tip of the blade, completely vertical.

D. Clevenger: How much will the turbine up on top weigh?

T. Kuykendall: It is a good question. I don't have my spec sheet with me. I can't tell you without... I had it.....

D. Clevenger: Horizon and them, that are wanting to put these out in the country, they tell me those are 50 ton.

T. Kuykendall: Oh yes. It is fairly heavy.

D. Clevenger: Yours is not going to be that .....

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T. Kuykendall: It won't be to the same because they are probably looking at a 1.5 or approximately 2.1 megawatt so the generator and the cell that hugs are going to be larger but this will take a full size industrial hydraulic crane to install. But it won't be as heavy as the wind farm machines.

D. Clevenger: Where will the controls be to run that? They tell me they don't want them to run if they are going to fast, they shut them down. Is this the way with yours?

T. Kuykendall: Yes it has all the technology that the wind farm machines will have. The controls are located inside the base of the tower itself and it is locked. Controls, such as, if it indicates any sort of vibration, if the blades are out of synch, obviously high wind speeds, you want to site these in high wind speeds but when you get some of these straight line winds or storms, they will actually cut into the wind and they will try to actually pitch into the wind so they are vertical with the wind and it allows it to pass and it also has a hydraulic and manual breaking system that it will automatically shut down in winds excess of 60, it is 56 miles per hour.

D. Clevenger: Is this all controlled in the base?

T. Kuykendall: Yes it is.

M. Necessary: Mike Necessary, again. When I asked the school board to entertain having Tony with Performance Services come to one of our school board meetings early last fall, one of the things that they provided us and I think you probably have this in your packet, was the wind speed in Indiana and when you look where we are located, it is totally ideal. This is free. The wind is free and all of this made us start to think about what are ways we can save tax payers money? What are some ways that we can, like we talked about earlier, enriching the curriculum with the students interested in science? Tony talked about where the turbine is located, it is out there far away from the playground. It is sort of in between where the playground exists and the home owners to the south and we feel like that is the ideal location. For safety factors, you know how much schools are concerned about students and so forth, when kids are on the playground, I mean there are rules and as far as kids getting close to it during playground, we are 400 feet or so away from where this location would be.

L. Deguise: Just for the record, we don't have that in our packets.

M. Necessary: You don't have this?

L. Deguise: As far as the distances from the school or lot lines or parcel lines....

C. Flatter: Mike we will have to keep that if you pass it around.

L. Deguise: What we have is extremely black. You can't read it.

C. Addington: There is another one besides that one.

L. Amspaugh: Yes but it doesn't show the distances.

T. Kuykendall: I have one that is color that is not black like that one.

L. Amspaugh: looking at the other layout, it does give us some kind of general idea from the parking lot area where it does come out off of that....

C. Flatter: Right.

Chr. Davis: Tony that will stay here with us if you pass it around.

C. Flatter: I can make a copy for you.

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T. Kuykendall: It is the same sheet as that but it is in color. You will be able to see those rings as far as like where those come in contact with any of the surrounding environment.

C. Flatter: These documents were faxed to us that is why it looks like that but we included it because it was part of the packet. That is why Jamie made the copy of the aerial.

L. Deguise: I am extremely familiar with the property because my kids go to Randolph Southern.

D. Clevenger: How much noise?

T. Kuykendall: They are all rated for a certain decibel level and most of these machines, this is going to be substantially less than what your commercial machines are going to produce. Most ordinances have a requirement, typically 55 decibels or less and that is usually at a certain distance away from the base of the machine. So this will fall within that guideline as well.

C. Addington: What is an example of 55 decibels? I am not sure.

T. Kuykendall: An example, actually it is a little bit louder than an office setting, so as far as a background noise that you would have at an office setting or at home, that is typically anywhere between 35 and 45 decibels so it is going to be slightly louder than that. That is going to be when it is actually windy and it is producing some capacity. Obviously it doesn't make any noise if the wind isn't blowing.

C. Addington: How bout that lighting...will it affect the surrounding .....

T. Kuykendall: No I don't think it will affect it. It is required through FFA and it will need to have a lighting sequence on that and it will be on top of the hub and it will meet their requirements but I believe it is just one light that will flash on.

C. Addington: You don't think it will affect the neighbors or anything as far as....

T. Kuykendall: No, I mean I guess if they are sitting out on their porch they may see it flash on and off periodically but it is not.....

C. Flatter: It is not like a strobe or anything like that.

T. Kuykendall: It is not a strobe and there is not 50 of them either, there is just going to be one, but it does need to be on there and it will be flashing.

C. Flatter: When we made our trip to Benton County back in November, you can be in a mile square and you are seeing 15 of these turbines and we went out and walked into the field and we were right underneath and they are larger ones than these, it was a very windy day and it just sounded like the wind blowing in the air. It was nothing that was distracting from the day to day life of anybody that lived around those. There are multiples. There are hundreds.

T. Kuykendall: My point, there will be noise up within the cell, when the generator is producing energy and because of the surrounding wind and it is 70 meters high, at ground level it is not an issue for surrounding areas.

J. Trautman: What is the length of the blade? I mean the height? How high is it off the ground, where it is vertical?

T. Kuykendall: Well the blades themselves, they are 60 meters in diameter so they are 30 meters long. So they are going to be 40 meters above the ground, so 130 or 140 feet above the ground.

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L. Amspaugh: That would be at the lowest part of the propeller?

C. Flatter: Yes.

L. Amspaugh: And 329 to the tip from the ground level to the ....

T. Kuykendall: Correct.

D. Clevenger: How long would it take you to put one up? Is the material available right now?

T. Kuykendall: Yes it is. One of the reasons with not only Randolph Southern but Randolph Eastern, we are trying to actually time these projects because there is a cost savings for us to have the same crane crews and electrical crews come out and do more than one of these because that is really where the cost can go through the roof. The manufacturer that we are working with, if this was approved and we moved forward with Randolph Southern here, I would say within a month or whatever that time period is, we would be able to have one of these installed by the end of October of this year, which that may seem like a long time but that is a fairly short lead time for most of these wind turbines because we are small enough that we are not competing with the commercial developers and those lead times are still a year and a half to two years.

C. Flatter: That is what I thought.

T. Kuykendall: So we are looking at about 6 months and the construction period is relatively short, they will actually put it up in a few days. The foundation and that sort of work will happen before then.

L. Deguise: I was talking to one Randolph Southern resident that was asking me a question. Is there any danger to ice in winter time flying off these blades any given distance?

T. Kuykendall: Yes and I won't saying flying off but I'm talking about if you are underneath the machine and this is just part of the requirements that we will have in place with the school, just like any communications tower or power line that you have, if you have a fixed object and if it does collect ice and when it melts it will fall to the ground. There is a bunch of studies that have been done on "ice throws" is what they call it, and there are instances I guess where if the right situation would happen, it could when it say it iced and say it got real windy and the machine kicked on and it wasn't at a balance for some reason, the sensors on it and then it started to shed the ice. Those reports have found that as far as the size of those, are pretty small and they stay relatively around the base of the wind turbine. The way they are designed, wind turbines can not operate very efficiently with anything on their blades at all. The propellers just can't get going very quickly so if anything would ever, in that scenario happen, it would be within the vicinity really of the wing span of the blades. We've called the schools that have done this in Illinois and Iowa and specifically asked this. They sometimes have worse weather than we do and I asked their superintendents there if they had any issues with this whatsoever and they have had no incidents. I am not saying it can't happen but they have had theirs up and operating since 2005 and they have had no incidents at all. But it is something that during those time periods we just don't have kids go outside for recess if it has been icing or something along those lines.

L. Deguise: I asked because there is a practice field there isn't there Mr. Necessary?

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M. Necessary: At times they've used that area a little bit back to the east towards the building. The proposed site for softball diamond if we get a softball diamond, is going to be right south of the baseball diamond so kids going out there and practicing maybe on their own or whatever, you can't control that I guess, but yes there has been practices out there before and I think there is a net still standing out there.

L. Deguise: Yes a soccer one.

M. Necessary: We would not have practices scheduled in that area at any time of a school year.

L. Amspaugh: I am assuming though, are you going to like fence off an area around there for that purpose?

M. Necessary: We haven't talked about, you mean for the....

L. Amspaugh: For say maybe a safety purpose, you know getting that close within the dimension of the propeller at widths.

M. Necessary: We've not considered that because we feel like our supervision and so forth will be good enough. Most of the kids don't leave that general area where the playground is. The supervisors are supposed to keep them there. They are not even supposed to go west of the pine trees because then you can't see them and all of a sudden they can disappear out into that science wooded area and next thing you know they could be out on 36 so there are monitors that are suppose to make sure that the kids don't disappear so to speak. I think if this was to go through there would even be more conscientiousness to this whole thing. I am in hopes that if this goes through then our kids will have more of an interest in green energy and maybe inclined to study science a little more and maybe do reports and so forth. It might generate some interest in that way. Curiosity, after a certain amount of time, be like anything else, you know it is out there. Not a big deal, but initially yes we will have to be on our toes but no we have not talked about any fencing.

L. Amspaugh: This is an enclosed tower? It is not an open type tower?

T. Kuykendall: It is enclosed. We have talked about a lot as far as some of the specifics, it will likely have a fence around the actual base of the tower itself just to keep anybody from touching the tower or hitting it with anything but as far as that wide of a fence, we weren't anticipating that at this point.

Chr. Davis: How high will the fence be generally?

T. Kuykendall: I think we are just going to do a 6 foot or 7 foot fence.

L. Deguise: How close does the blade get to the ground at its lowest possible range?

T. Kuykendall: The end of the blade is 30 meters and the tower is 70 meters so it is still going to be 40 meters from the ground.

L. Deguise: Okay.

L. Amspaugh: The only thing I was worried about again was the conditions of the ice and stuff that would build up on this that if again the propeller was starting the motion and it was in a vertical situation and ice would drop, if there was kids in that vicinity something dropping 120 feet, like a chunk of ice, would probably do them in.

T. Kuykendall: That is probably the largest concern is ice falling from that machine right there.



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L. Amspaugh: Sure that is where I didn't know, but again you were also saying that the blade is probably not going to function with that kind of ice on it to begin with.

T. Kuykendall: Right. Between the vibration sensors they have and just the efficiency of it being able to start itself, it would have to be one of those unique situations where there was a strong enough wind that had started before the ice had sheeted to really even present that opportunity. So it would be very unlikely but.... Trying to put it in the field and hopefully having the setbacks with the school as far as restrictions, most students probably will not be out in those conditions where you don't want people out. You can be around this thing. It is not really an issue at all. Like if it was on a farm, you could farm it, you can have people around it but if you have straight line winds coming in or if you have an ice or snow storm coming in, you probably won't want to be outside in those conditions any way but you really don't want to be around the wind turbine, if you are having bad weather.

B. Davis: Does any board members have any questions for them before we hit the comments from the audience? Would anyone else like to speak? Please come on up. Thank you.

M. Necessary: Thank you for the opportunity.

Chr. Davis: Please just state your name.

J. Basler: Joe Basler, 610 Westwood Drive. I would kind of like to see this site map of where they are going to place this wind turbine. I would like to know which direction it will turn, clockwise or counter clockwise?

Chr. Davis: Tony would you like to be able to come up and answer that, you or Mike?

T. Kuykendall: As far as which direction it will turn....

J. Basler: If you were facing the machine.

T. Kuykendall: If you were facing the machine, I believe it is clockwise. I need to have all my specs in front of me.

J. Basler: Right. That is the questions I had. Is there any way I could get a copy of this?

C. Flatter: We can copy them for you tomorrow. It takes our machine a while to warm up.

J. Basler: Can I show the ladies in the back of the room?

C. Flatter: Sure.

J. Basler: Thank you.

Chr. Davis: Would anyone else like to speak? Any other comments? Does the board members have any other questions or comments? Hearing none I would entertain a motion to take action on this.

L. Deguise: I will make that motion.

J. Trautman: Second.

Chr. Davis: We need a motion to take action on a roll call vote.

D. Clevenger: So moved.

C. Addington: Second.

Chr. Davis: We have a motion and a second. Jamie we are ready for a roll call vote.



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A roll call vote was taken: Charles Addington, yes; Dale Clevenger, yes; Bill Davis, yes; Lee Deguise, yes; James Trautman, yes; Larry Amspaugh, yes; Christy Starbuck, absent.

C. Flatter: The petition has been approved. You just need to get your permits before you are ready to get started.

T. Kuykendall: Thank you.

M. Necessary: Thank you for your time.

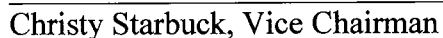
Chr. Davis: Good luck.

The meeting was adjourned at 7:35 PM.

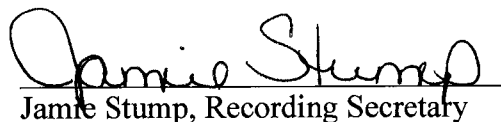
THE NEXT REGULARLY SCHEDULED MEETING IS APRIL 20, 2009 AT 7 PM IN THE COMMISSIONERS CONFERENCE ROOM OF THE RANDOLPH CENTER FOR FAMILY OPPORTUNITY, WINCHESTER, INDIANA.



Bill Davis, Chairman



Christy Starbuck, Vice Chairman



Jamie Stump, Recording Secretary

