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Testimony continues

By BREANNE PARCELS
Staff Writer

COLUMBUS - The adjudicatory hearing on the Buckeye Wind application before administrative law judges for the Ohio Power Siting Board resumed Tuesday with rebuttal testimony from David Hessler, the acoustic engineer the company hired to model noise projections and mea-

sure background sound data.

Hessler initially testified about how he modeled the noise levels for the project based on weighted sound data obtained from a survey he performed to establish the "L90" background noise level, then adding five A-weighted decibels to achieve his design goal of 40 dbA.

"Forty is a long-term

average, not an absolute limit," he said. "I think it's over a whole year. It implies the actual level would fluctuate with the average being 40."

Attorney Jack Van Kley, representing Union Neighbors United, pointed out that while UNU's acoustic engineer, Rick James, established an L90 with only two decibels of variation from Hessler's

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Turbines

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baseline, Hessler called James' methodology "grossly conservative" along with James' recommendation for a 1.25-mile residential setback to avoid health impacts from noise.

"Is it your position that this board has to issue a certificate for this project even if it finds the effects of noise on the neighbors to be unacceptable?" Van Kley asked.

"There's nowhere to put a turbine on this site with that kind of setback. I'm not making a judgment of whether the project should be there or not," Hessler said.

"So you're not suggesting this board overlook health effects or noise effects these turbines may have on the residents of the area," Van Kley said.

"No, I'm not suggesting that," he said.

Van Kley asked why, then, Hessler said the setbacks proposed by James were unfeasible.

"I think the implication here is that they've selected the site and basically the board has to live with it," Van Kley said. "Would you agree it's the applicant's duty to select a site that can be used without harming the neighbors?"

"I think any development should make every effort to minimize the impacts and that is exactly what was done in this case," Hessler said. "There was considerable effort put into maximizing setback distances and minimizing sound levels at many homes. I think the reality of the situation is that it's very difficult to avoid putting wind projects near houses in this country. There are very few practical sites that are remote. It's a balance between the two interests."

"When you started working with Buckeye Wind on this project, had they already selected the sites they were going to use?" Van Kley asked.

Hessler said he was given a site plan outlining participating parcels, and more parcels were added to the project after his work began.

"We made a lot of changes and went through about seven different iterations to improve the situation," he said. "We were given free reign to say eliminate this turbine, we would cross out sometimes up to half of them and recalculate the contours, then find new homes for the

ones we eliminated. So it was spread out and thinned out."

Van Kley also asked Hessler about his work with C-weighted, or low-frequency, sounds and a general industry standard of under 70 dBC as acceptable in gas turbine plants.

"That number comes from almost 20 years of my own field experience and 35 years of my father's," Hessler said. "The bulk of our work, up until recently, has involved conventional power plants (with) true sources of tremendous low frequency noise."

"Have you modeled dBc noise from any of the three turbine models Buckeye Wind is considering in this project?" Van Kley asked.

"There were two (turbine) models we were made aware of," Hessler said. "We used the one that had the slightly louder sound power level. All of the plots are looking at A-weighted sound contours but the model does take into account the frequency of the sound, and we looked at C-weighted at some of the nearest houses. As I recall they were in the neighborhood of 60 dBC or even less."

Van Kley then produced a paper authored by George Hessler.

The witness's father, which was produced in 2004, on proposed criteria for low-frequency noise emissions from industrial sources in residential communities.

"You said you based your conclusions on your experiences and in part on your father's experiences," Van Kley said. "(The 2004 paper) talks about an excess of 20 decibels between dBc and dBa for very quiet site ... That's the same kind of standard, except that in (G. Hessler's paper) it's applied to gas turbines and James and Camperman recommend it be applied to wind turbines."

"For wind turbines the magnitude of C-weighted noise levels are very low, relatively speaking," Hessler said. "You would get 20 differentials all the time so it's not very workable as a limit."

"Isn't it true that different individuals have different abilities to hear low frequency sound?" Van Kley asked.

"So some low-frequency sounds that will bother some individuals won't bother others," Hessler said. "Yes, we've run into that."

Hessler said. "Some people can hear sounds even instruments can't detect. I'm not advocating noise in the community."

Hessler said he focused on audible noise for the sound

contour models he produced. "We were trying to minimize the number of houses that would be exposed to L90 plus five, and an absolute design goal of 40 dBa," Hessler said. "It would be wonderful if you could design one of these facilities to make that but in reality it's very tough."

"Where in your report, Exhibit K of the application, did you state that 40 dBa was the absolute design criteria?" Van Kley asked.

"I don't think it's stated in here," Hessler admitted.

"Is it a working design goal or an absolute target?" Van Kley asked of the L90 plus five dBa level. "Even that criteria isn't met by your project."

"We did the best we could and got it down so there's only a handful of houses inside of that (40 dBa contour line)," Hessler said.

Hessler said the only projects that would meet such sound criteria would be remote locations such as uninhabited islands, mountaintops and mesas.

Van Kley also questioned Hessler about studies by researchers in Europe and World Health Organization guidelines on noise levels.

"I try not to rely on the work of others," Hessler said. "I'm not real fond of other people's research."

"Do you really believe that most people who are annoyed are going to complain to the developer?" Van Kley asked.

"I believe that most people who are seriously annoyed won't hesitate to call up," he replied.

Van Kley asked Hessler what specific level of noise some 30 nonparticipating homes would experience.

"(A-weighted decibels) of 40 to 43, I don't know," he said. "I don't think any go beyond 43 (dBa)."

"If the Nordex N100 (turbine) was to be used, how many homes would be exposed to more than 40 dBa?" Van Kley asked.

"I don't know," Hessler said, reiterating that he only used specifications for the RePower MM92 and the Nordex N90. "That would require a whole new remodel."

"Do you still regard 40 dBa as an ideal goal?" Van Kley asked.

"Yes," Hessler said. "I think it's an ideal goal for the design of wind projects, because in my experience complaints at that level are less and at the same time it happens to coincide with the health recommendations of the WHO."

Assistant Attorney General John Jones, representing the OPSB staff, asked Hessler to compare his own sound maps within the application to the more detailed maps in the OPSB staff report to clarify which homes would be subject to sound levels above 40 dBa.

Hessler said there would be five non-participating residences within the 40 dBa contour line.

"Would you happen to know what turbines would be (impacting) those non-participating residences at that noise level?" Jones inquired.

"Many of the dots are barns and garages and corncribs; not every one is a house," Hessler said, identifying homes near turbines 1, 2, 11, 19, 21, 23, 24 and 54.

"Turbine 23 and turbine 21 to the east, in between those two, there's evidently two houses, that's where the maximum predicted level of 42 (dBa) occurs," Hessler said.

"So, out of those five non-participating residences, we have three of the five between 40 and 42 dBa?" Jones asked. "If a nighttime limit of 40 dBa is applied, what would be the options for addressing those five non-participating residences?"

"The only way to reduce the sound level would be to increase the distance to the houses by relocating them, but bear in mind there are many other constraints on where these things are located as we've come to learn," Hessler said. "Some turbine models have a reduced noise operating mode where either the rotor rotation rate or the blade pitch is adjusted to minimize the power generation a little bit. I don't know that any of the models considered for this project has that, in which case the only option would be to relocate."

Jones asked how difficult relocation of those turbines would be.

"Two or three of the houses are on the contour line, so wouldn't have to move very far," Hessler said. "The one on the 42 would require a bit more effort. It might even involve eliminating one of the turbines."

"But if you were to slightly move these turbines, is there a possibility it could introduce noise impacts to other residences?" Jones asked.

"It's possible," Hessler said. "When you do an optimization study, it's a matter of creating as much elbow room as possible. There's always a wetland or something in the way so you can't always put it where you want to."

Assistant Champaign

County Prosecutor Jane Napier was rebuffed in her efforts to ask Hessler for potential solutions to the noise issues.

"You stated ... that there will always be some complaints that the project is audible at all," Napier said.

"Correct," Hessler said. "Is it fair to say you believe this project will be audible at some times?" Napier asked. "Yes, most definitely," he said.

"As an expert in noise, then, can you tell me what types of procedures would you put in place in a complaint resolution process to deal with noise?" Napier asked, only to have ALJ Katie Stenman sustain an objection that the question was "outside the scope of rebuttal" as defined by Buckeye Wind's attorneys.

"What kind of complaints would you expect to see?" she rephrased.

"From this project as it's currently planned, I think based on the predicted levels and where the houses are in comparison to the turbines and the magnitude predicted at those houses, I would expect to see sporadic complaints with some fairly moderate - a small percentage, just let me leave it at that," Hessler said.

When Napier asked Hessler how the county and the township should respond to those conflicts, another objection was sustained as outside the scope of rebuttal.

The last two rebuttal witnesses scheduled to testify on behalf of Buckeye Wind this afternoon are

Indiana residents Leon R. Cyr, a Benton County commissioner, and Jud G. Barce, a former

Benton County prosecutor. Both men claim in their written testimony that they have experienced no negative effects from turbines sited near their own homes. Cyr has a contract to host turbines on his own property, while Barce does not.

For more information about the case, including hearing transcripts, visit the project docket at dis.puc.state.oh.us/CaseRecord.aspx?CaseNo=08-0666.

ALJ Greta See established a deadline of Jan. 15, 2010 for all parties to file simultaneous initial briefs in the case and a response date of Jan. 27 for the parties to reply.

After the administrative law judges complete their report, the application will go before the OPSB members for a decision on whether to approve or deny a certificate to allow construction of the project.