Noise a tough topic at wind farm rules meeting
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Dave Price lives four miles north of Athena. From his home's picture window, he can see wind turbines two miles away.

Another wind power project is in its early application process, slated to go two miles east of Price's home. He knows of two more projects that could put wind turbines anywhere from zero to two miles from his home.

"What sort of impact do you think this will have on me?" he asked.

Price was one of many people who spoke to Umatilla County commissioners during the hearing on proposed changes to rules on where and how the county sites wind farms.

Price wasn't necessarily taking a stance against the turbines, or saying "not in my backyard." Instead he asked commissioners to take a big look at how all these things will add up.

His biggest concern? Sound.

Price was worried: If all these wind turbines surrounded him, would the noise grow and grow?

The state limit on sound is 36 decibels. That's the loudest the sound can be at a person's home and is the benchmark a wind company must meet before being approved by the state.

"You could run into a situation with this noise thing where you have overlapping 36-decibels lines," Price said. "You could have a case where an individual landowner could exceed 50 decibels. So what then? That would be a situation that would be impossible to mitigate."

The county commissioners are wrestling with the question of how close to allow wind turbines, and sound is one of many factors that go into that decision.

Noise is often the biggest complaint, and something people say leads to health problems.

One speaker, who came to the hearing with a group of wind power company representatives, was Mark Bastasch, an acoustical engineer with CH2M Hill, an engineering consulting firm.

Bastasch said he had taken part in numerous panels and workshops around the world addressing sound related to wind turbines.

The Oregon 36-decibel level falls somewhere between the sound level in a library and the sound level in a living room or bedroom, according to a slide in Bastasch's presentation.
But, he noted, the decibel scale is a logarithmic scale, meaning increments are exponential, rather than linear. Picture a parabola versus a straight line.

Sound levels added to each other do not accumulate in a linear way either. For instance, Bastasch said, 100 turbines is about 20 decibels louder than one turbine.

Though he did not speak about cumulative effects - Price spoke to the commissioners later in the day after Bastasch had left - he said the International Multidisciplinary Sound Advisory Panel, which he worked on, found no adverse health effects that could be proven. He rather referred to "annoyance" and "noise sensitivity."

Kent Madison, who owns a small-scale wind farm on his farm near Echo, gave the commissioners an example of sound levels. He used a sound meter to measure the level in the hearing room.

"Right now while we're talking, we're talking 67 to 75 decibels as we're talking. If we don't say anything," and he paused for silence, "that's 40 decibels. That's four decibels more than what the background noise is on a wind turbine regulations are."