

# The Power of Wind

**Tess Brown**

It's not what you think. I was not assigned to write about green energy. This essay does not glorify the power of wind. On the contrary, you will learn that in the rush to find renewable resources, our society may have overlooked some important unintended consequences. Although it's always more fun to talk about benefits than costs, this paper lies at the intersection of the two. It is divided into three parts. The first is a letter addressed to the town board of Hammond, New York, where a debate over the installation of wind turbines is currently taking place. The second explains the pros and cons of industrial-sized wind turbines. And the third is a personal reflection piece. Through this paper, I hope to illuminate the full story behind wind energy.

---

*Town Board of Hammond  
Hammond, NY 13646*

*Re: Wind Energy Facilities Laws*

*Dear Town Board:*

*I am Tess Brown of Oak Island, in Chippewa Bay. The St. Lawrence River is my home away from home. My great-grandfather bought a piece of property located on the mainland, known as Three Ledges, in the 1930s and our family has been gathering there every summer ever since. I made my first trip to the River when I was six months old. I grew up as a river rat. I spent the summers hunting for frogs, fishing for perch, jumping freighter waves in our little Boston Whaler, exploring the islands to meet new friends, and enjoying a daily swim or just floating in the river's fresh water. As I am almost eighteen years old, I have grown very attached to this special place.*

*I am writing to express my deep concerns about the hasty movement towards passing the town's Laws 1 and 2 regarding wind energy facilities*

---

**This paper was written for Mark Clevenger's Creative Non-Fiction class in the fall of 2009.**

*in the town of Hammond. I believe that it is a necessity for the community to spend ample time researching and addressing the environmental and public health issues that would result from the development of industrial-scale wind turbines. Wind turbine projects have already begun in other areas of upstate New York and a lot of negative reactions have been reported. It is important for the town of Hammond to recognize these people's stories and the likely consequences of industrial-scale wind turbines.*

*Thank you for your time.*

*Sincerely,*

*Tess Brown*

*Chippewa Bay, NY*

---

Wind is invisible. Wind makes many different noises: it whistles when quick, creates crashing waves when forceful, and amplifies the low tone of an empty old-fashioned Coke bottle when softly blowing. Wind is tasteless. Its only touch is the rippling of your clothes against your skin and your hair swirling in your face. It smells of whatever it carries: orange groves or redwoods burning. Wind is simply moving air that is caused by differences in air pressure. How could wind be harmful?

Wind is a renewable resource. Wind turbines or windmills transform the kinetic energy of the wind into mechanical or electrical energy that can be used for practical purposes. As of January 2005, wind power generated enough electricity to power 1.6 million average American households (4.3 million people). The public demand for clean renewable energy has surged, thus the growth of wind energy nationwide has been rapid and large-scaled. The U.S. Department of Energy has announced a goal of obtaining 6% of U.S. electricity from wind power by 2020. Wind energy has become an increasing portion of the nation's energy supply.

I completely support and encourage the usage of alternative energy sources that are clean and effective, and I believe that wind is an excellent resource. However, wind turbines have caused some intensive debates. These towers are mostly tubular and made of steel. Their blades

are made of fiberglass-reinforced polyester or wood-epoxy. Industrial wind turbines, which produce the most energy, are huge. For example, the GE 1.5 megawatt model has 115-foot blades atop a 212-foot tower to form a total height of 323 feet. The alarm concerning these industrial wind turbines is that they are installed too close to where people live, work, and go to school, and that they endanger much of the wildlife where they are located. Wind projects have already been established in many parts of the country and in Europe, and many complaints have followed. Currently, the locations of these industrial-sized wind turbines are determined by the wind power companies, which seem to disregard public health. The wind turbines have recently invaded my family's vacation home in the St. Lawrence River County, threatening the survival of this national landmark and the wellbeing of the people who live there.

Hal E. Graham is a Cohocton, New York, wind farm leaseholder. My mother heard him speak at a meeting held in nearby Clayton, and he has been a major figure publicized in many local newspapers for those who are against installing large wind turbines in the town of Hammond. He has one industrial-sized wind turbine on his property 2,000 feet from his house. Mr. Graham is a strong believer in finding new sources of alternative energy. He thinks that renewable wind energy is a great resource and he was not opposed to receiving income from the wind company to house a wind turbine. However, he soon found this powerful energy source intolerable to live with. The developer, First Wind, of Newton, Massachusetts, guaranteed Mr. Graham and his wife that "they would not hear anything louder than the sounds of a refrigerator 200 feet away." However, Mr. Graham stated that the noise "makes the windows on his house rattle" and "at times, it is almost unbearable." The noise is noted to be like a jet taking off in your own backyard, yet the jet never seems to leave the ground. Mr. Graham explained that when he lies down to go to bed at night he can actually feel the thump, thump, thump of the rotating blades in his chest. Instead of counting sheep, he is forced to count the beats of the blades rotating around and around. The red light at the top of wind turbines that flickers at night to warn airplanes of their presence constantly flashes into the house. He can see the light on the kitchen table, reflecting off the teacups, and

flashing like an ongoing siren in his house. Mr. Graham complained to the wind company, yet they replied that they were simply within their guidelines and there was nothing they could do. Both he and his wife have difficulty sleeping, causing endless health problems. Mr. Graham's turbine also becomes highly dangerous in the wintertime. Since the rotating blades are not in motion continuously, when they are at rest they collect mounds of snow and ice, which can be flung off in every direction once the turbines start up again. Mr. Graham and a few of his neighbors have been traveling to talk to other communities to provide firsthand information about the risks of placing wind turbines too close to where people live, work, and go to school. The farm he lives on has been in his family since the 1700s, yet he sees no other alternative than to simply abandon his home.

Nina Pierpont lives in Franklin County, New York. She is a doctor and an ecologist and has written a book concerning her research and findings about wind turbines and their negative side effects. Wind energy companies arrived in her county with a strong purpose, yet no controls. They were not being regulated by the legislature or the New York State Energy Research and Development Authority (NYSERDA). Dr. Pierpont has been researching and interviewing to gain an understanding of the health and wildlife problems that these industrial wind turbines cause. During her testimony to NYSERDA, she argued, "it is irresponsible of the wind turbine companies—and governments—to continue building wind turbines so close to where people live until there has been a proper epidemiological investigation of the full impact on human health." Wind turbines emit a constant low-frequency vibration and noise that people are very sensitive to. These vibrations can disturb one's inner-ear vestibular system, which is responsible for balance and spatial orientation. Therefore, people living too close to wind turbines for a prolonged period of time can develop a disorder related to the inner-ear disruption known as Visceral Vibratory Vestibular Disturbance (VVVD), which can cause nervousness, chest tightness, heart disorders, nightmares, and even cognitive development issues in small children. Dr. Pierpont, along with other scientists and physicians, has also identified Wind Turbine Syndrome (WTS). The symptoms of this disorder begin when local turbines go into operation and go away when the turbines are at rest or when the person leaves

the area. The symptoms that characterize WTS are: sleep problems—noise or physical sensations of pulsation or pressure make it hard to go to sleep and cause frequent awakening; headaches that increase in frequency or severity; dizziness, unsteadiness, and nausea; exhaustion, anxiety, anger, irritability, and depression; problems with concentration and learning; and tinnitus (ringing in the ears). However, WTS does not affect everyone. These symptoms are known as “risk factors” since some are susceptible to them and others are not. Epidemiologic studies are currently in progress to determine what makes someone more vulnerable to WTS.

Along with severe health problems, there are harmful impacts of wind turbines on waterfowl, fish, and other wildlife in a major wetlands area. The U.S. Fish and Wildlife Service recommends that wind turbines should not be placed near wetlands, shorelines, or in other known wildlife concentration areas, especially where fog or low clouds are common during spring and fall migration. The St. Lawrence River is a major national wetlands area and serves as a major migratory pathway for many species of birds. The impact of the height of these turbines, the size of their blades, and the noise, vibration, and flicker may all affect the wildlife in the area. There have been incidents at other wind turbine projects where many hundreds of birds and bats have been killed within a few months of the start of turbine operation. The 1000 Islands Region of the St. Lawrence River is a unique place of natural beauty and wildlife habitat enjoyed not only by the residents but also by many visitors who help the economy. Special care should be taken not to disrupt this national resource.

---

Again, I am completely behind using wind power as a renewable energy source. However, industrial-sized wind turbines should not be installed close to where people live, endangering their health, or in areas where an abundance of wildlife may be put at risk, or in a place whose economy depends on recreation and relaxation of residents and vacationers, like me. The River is a place of peace and relaxation, where all my worries slip away and there is no such thing as time. It serves as more than a vacation spot. It has become a place to escape and a place

to enjoy the simplest things in life: taking a nap on the screen porch during a soft rain, reading a book until three in the morning without having to worry about the tasks of the next day, munching on chips and salsa with my family at cocktail hour, going out for a cruise to watch the sunset, and just floating on the River for hours.

The River is a place where my family gathers together and is able to wind down. Uncle Chris travels from Vermont where he works as a Fed Ex driver. Aunt Anne makes the trek from Guatemala where she holds the position of country manager for Catholic Relief Services (CRS). Venturing from California, my cousin Sarah spends her vacation away from the pestering fifth graders she teaches. Uncle Rick, an engineer working for a pollution control equipment company, and his wife Holly, a midwife, drive 10 hours from Ann Arbor, Michigan. Each member of my family has a highly demanding job that produces varying stress levels, yet each schedules the time to get away and enjoy at least a week at the River. My family can escape the fast-paced, rampaging technological and industrial world to a place where everyone forgets their responsibilities and straining issues. Here there are no flat tires on a packed delivery day, there are no temporary shelters needing to be built, there are no kids who just learned how to “give the finger,” there is no pollution to control, and there are no complications from births. We lose our stress here. Our minds unwind and our bodies decompress. However, if constant noise, low-frequency vibration, and flicker, which potentially cause irritability and mood changes and further increase levels of anxiety, poisoned this serene atmosphere, the River would lose much of its value and my family would lose its refuge.

Not only is it a place of leisure time, but it is also the place where my family bonds and becomes unified. It’s the place where we play Cranium or hearts for hours. It’s the place where we sit around the fire roasting marshmallows until they are gooey enough to smooch between two sticks of chocolate and a graham cracker. It’s the place where we talk; the place where we laugh; the place where my eight-year-old cousin Jessie teaches everyone the steps of an Irish jig. There is no TV at the River. We have only ourselves for entertainment. My brother, cousins and I team up against all the old folks in intense charade games, acting out movies such as *Harold and Kumar Go to White Castle*, watching

them struggle as they guess classic films like *Casablanca*. My uncle and my brother strum on their acoustic guitars while the rest of the family attempts to make up songs, blurting out lyrics such as “You can have some fun. Under the sun. At the River.” We have huge family dinners where my brother, 22, and I, almost 18, hold permanent spots at “the kids’ table.” My grandma makes her specialty jambalaya and we devour the whole pot of it. My family can be loud, boisterous, and at times just strange. We are spread out from coast to coast, even to other countries, yet the River is our home away from home. It’s our family’s place. It’s our central station. These industrial wind turbines pose a threat to my family’s core. I would be very sad if these intrusive structures upset my family’s behaviors and traditions. If the River became sensorily uncomfortable, I am worried that my family’s dynamics would become disrupted, that we would become more distant. I don’t want my family patterns to change. I don’t want the atmosphere to change.

On river nights, the stars dazzle in an ink sky. There are no city lights or even buildings taller than two stories to brighten the black night—only the stars. The blinking red lights atop the comparable forty-story wind turbines would look like an alarm flashing throughout the world. You would be able to see this flashing light through our curtainless windows throughout slumberless nights. Inside our house, you would be able to hear them. They would echo off the heart pine floors and the beaded fir walls of the all-wood cottage. There is little carpeting or drapery to absorb sounds. Even my fifty-pound dog’s footsteps reverberate throughout the house. Wood is like a tambourine for sound. In my house, that thump, thump, thump, would be echoed, magnified, drowning out the soft rustling of the cattails in the marsh that nearly surrounds my house.

I love listening to the bullfrogs at night unimpeded by steel mechanical sounds. Many wildlife creatures have created their home on our island long before we arrived; the place wouldn’t be the same without the numerous crawlers. I love waking up early in the morning to see a soft goldish-brown baby deer decorated with white spots wading in the tall grass. When I see a tall grey-blue washed heron standing tall on the rock point, I like to approach the dock slowly, cut the boat engine and drift until the heron soars off. I like the natural emptiness of the land.

Driving through it, I can see miles of uninhabited fields of green grass and trees with no construction or industries to be seen—just space. I love the night after a big storm; the sleeping may be humid and sticky and hot, yet it is so quiet and so still. I love watching a flock of redwing blackbirds fly in formations over the marsh, flapping their wings, revealing their unique strip of red under their black feathers. I love to listen to the wind—the natural wind. The natural wind lets you think as you sit on the Adirondack chairs. It cools you down as you lie tanning on the wooden dock. It provides great sailing or tubing weather. It calms you with its soft humming. I would truly hate for people to suffer through health problems, for the wildlife to be diminished, for the natural beauty of the St. Lawrence to be dampened, for the industrial world to invade the simple and organic atmosphere. What would I hate most? Never being able to hear the natural wind again. ●

