

From: [Ohio Power Siting Board](#)
To: [Puco Docketing](#)
Subject: public comment 17-2295, 18-0488, 18-1607 [ref:_00Dt0GzXt._500t0FN40Q:ref]
Date: Tuesday, March 5, 2019 12:39:42 PM
Attachments: [OPSB Industrial Wind Turbines in Bellevue Karst.docx](#)

Please post this attached letter to the Emerson Creek, Seneca, and Republic Wind Projects public comments.

Thank you,

Krista Beck



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Environmental Impact of Industrial Wind Turbines On Bellevue-Castalia Karst Plains

According to the Applications submitted by Apex Clean Energy and sWind to the OPSB, all or portions of the Emerson Creek, Seneca, and Republic Wind Projects sit within the Bellevue -Castalia Karst Region.

In-depth studies performed by The ODNR Division of Geological Survey and Division of Water revealed that the Bellevue/Castalia Karst Region has:

- The largest sinkholes in the state by perimeter, volume, area, and axis..
- More than 1,000 verified sinkholes
- Highly developed “sinks” because of the ancient lakes and underlain gypsum evaporates
- Increased bedrock fracturing from multiple glacial events
- Higher dissolution activity and merging of sinks that create larger sinks than other areas
- Less than 20 feet of glacial drift or none at all which...”**makes this area prime for karst development.**”

Also in Apex and sWind’s application to the OPSB, they state:

- “Construction [of turbines]...could result in certain localized impacts to groundwater. Installation of turbine foundations has the greatest potential for such impacts...”
- “Excavation within bedrock may be necessary to install foundations ...the need for blasting, rock breaking/hammering, and/or pile driving may arise during construction...”
- “When required, blasting can generate seismic vibrations, fracture bedrock, and potentially impact localized groundwater levels”

It is impossible for us to ignore the risks of erecting more than 200 Industrial Wind Turbines from these 3 projects, into our vulnerable, unpredictable, and destructive karst region. Please take into consideration the professional thoughts and opinions from geologists around the country:

-San Francisco State University Dept of Geology

“The impact of human activity on karst terrains is amplified and characterized by extreme rates of change on an exaggerated scale...their very nature is what makes them fragile and susceptible to pollution...Because of the rapid velocities of these underground streams, contaminants may travel several miles ... in only a few hours...”

- Barr Engineering Co/Oklahoma Geological Survey

- "Sinkhole collapse, drainage problems, and groundwater contamination are engineering and environmental concerns associated with development on karst terrains."

- Geological Survey Engineers

- "Karst can lead to a wind turbine tilting and even toppling... subtle differential settlement of even 3 centimeters across a 15-meter-wide wind turbine foundation can cause the turbine to be out of tolerance and lead to expensive and time-consuming remedial action."

-ODNR Geological Survey

"Karst...is a geological hazard that Ohioans must live with. As with any geological hazard, however, the risks to property and health from living on karst can be greatly reduced by *using common sense and maintaining a sense of respect for both the power and vulnerability of the environment.*"

Erecting turbines in the most developed karst region in the state makes no sense!

On behalf of all the citizens who live within the Bellevue-Castalia Karst Region, and have experienced first-hand it's unpredictability and it's destruction, I ask that you deny the Emerson Creek, Seneca, and Republic Wind Projects.

Thank you for your consideration,

Krista Beck

Groton Township/Erie County

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise." Aldo Leopold

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Case No(s). 18-1607-EL-BGN, 18-0488-EL-BGN, 17-2295-EL-BGN

Summary: Public Comment received via website electronically filed by Docketing Staff on behalf of Docketing.