Hello, Chair Jones, Vice Chair Robb-Blasdel, ranking member Rogers, and members of the Natural Resources Committee. My name is Bev Reed and I am representing Buckeye Environmental Network today. We are a 30-year old Ohio-based grassroots-focused environmental non-profit organization. We have thousands of supporters and members in Ohio, the tri-state area, and beyond. We work to empower local communities, individuals, and grassroots organizations to advocate for environmental justice. Today I will be providing testimony on House Bill 170.

There is a new push nation-wide to inject massive, unprecedented amounts of carbon dioxide underground. Carbon capture and storage (CCS) technology is designed to isolate & trap some CO2 emissions from polluting power plants, ethanol and hydrogen production facilities, and other heavy emitters. The captured carbon is then pressurized into a “supercritical” state and injected into underground rock formations through novel Class VI wells, where proponents claim it will be stored indefinitely.

Property rights

HB 170 goes beyond simply creating a regulatory framework for carbon capture and storage. It allows for companies and LLCs to dump carbon dioxide emissions under private property owners’ land and homes without their consent. In the bill, it is referred to as “statutory consolidation” and it allows for people within what is called a “pore space” to be forced into a CO2 storage project. This is similar to the “force pooling” practice that applies to oil and gas mineral rights. As an example, if there are 2 landowners that represent 70% of pore space in the project area, and 10 landowners who represent only 30% of the pore space, and the two larger landowners agree to the project, it would trump the smaller landowners and they would be forced into the project, even though there are more of them numerically.

The question is: how is this bill constitutional? It is written in the US Constitution that we have a right to freedom of property. This bill is in direct conflict with that. It is unpatriotic and un-American to force people into a project of any kind dealing with their property rights, especially one that involves a pollutant like acidic carbon dioxide, which has many known health and environmental effects. It is in contrast with conservative values. Small landowners would be even more at risk if Ohio approves the use of state-owned land for CO2 storage, as is happening in West Virginia.

In the state of Louisiana, lawmakers are in fact doing the opposite. They are proposing laws there that would protect land owner rights and properties from CO2 projects and prevent force pooling. And in South Dakota, a law was just passed that protects property owner rights from CO2 pipelines that run across the countryside. The people of Louisiana and South Dakota realized that the risk is too great to allow these projects on their properties. Why are we doing the opposite here in Ohio? Contrary to what the sponsors and proponents of this bill have said, carbon capture bills in Ohio are not protective of Ohioans. If the only protection from an incident

like a well-head blowout or pipeline rupture is to opt out, this bill would take away peoples' right to do so.

Liability transfer

Carbon capture bills proposed in Ohio do little to protect our families from these threats. H.B. 170 would let carbon storage developers off the hook for long-term responsibility over their projects with a "liability transfer" clause. The clause allows developers to walk away from projects and any long-term consequences, incentivizing companies to cut corners on well construction, maintenance, and monitoring. HB 170 allows for a transfer of almost all of the post-site closure liability and long-term monitoring to the state. Ohio is already not ideal for carbon capture and storage due to the tens of thousands of orphaned and abandoned oil and gas wells. The state is overburdened with plugging these old wells, as well as dealing with the nearly 1 billion dollars in abandoned mine land reclamation costs. Why would we add yet another obligation to the state by making it responsible for class VI carbon capture wells, which are the most complex and dynamic type of well?

What do Ohioans gain with this legislation? How do carbon capture and the associated bills truly benefit Ohioans? Other states do not have bills with forced unitization and liability transfer provisions. Ohio should not be going out of its way to prioritize private companies at the expense of everyday Ohioans. Instead, the legislation proposed provides setbacks establishing buffer areas to protect oil and gas interests from CO_2 storage projects. But, there are no equal protections for environmental justice communities, schools, churches, parks, or other sensitive areas or groups.

The bill also grants the state "sole and exclusive authority" over carbon capture projects. This would prevent protective measures that local communities could employ for their safety if CO_2 projects come to their area. It takes away the rights of local governments to decide whether and how they want carbon injection to occur in their communities. This provision again prioritizes and protects the companies while marginalizing other stakeholders like people who object to CO_2 storage under their homes, properties, and places of recreation.

Health and Safety Concerns

Carbon pipelines pose a threat of nightmarish disasters. In 2020, a pipeline carrying pressurized CO_2 suddenly burst outside of Satartia, MS, releasing a cloud of toxic CO_2 gas into the nearby community. The rupture left residents dazed and gasping for air in a scene described by first responders as "like something you'd see in a zombie movie," ultimately hospitalizing dozens

and forcing hundreds to evacuate their homes. The people of Satartia are still dealing with chronic health effects from the incident.

Many miles of pipelines would need to be built to carry the CO2 to injection sites. Eastern Ohio is beautiful in that it is full of hills and valleys. It isn't like constructing out West where the land is flat and predictable. Erosion and subsidence issues are common, and would make pipeline construction and maintenance more risky.

This is not the first time CO2 projects have been a hot topic in Ohio. In 2009, after 14 months of protest, residents and government leaders in the city of Greenville, Ohio, located in Darke County, successfully blocked a carbon capture project. Opponents were concerned about impacts on property values and potential seismic activity from injecting the carbon dioxide underground, disruption to the aquifer and underpins to the county's agricultural economy. The Darke County example should be a lesson learned that CCS is not what people want. We get contacted by farmers in other states that warn against CCS projects.

The ethanol plants in the Western side of the state would be likely targets for CCS once again. Also, eastern Ohio and the tri-state area. We brought some maps from the counties of Carroll, Jefferson, and Harrison. As you can see, these areas are already overburdened by oil and gas wells, conventional and horizontal. As stated previously, Ohio's potential carbon storage reservoirs are overlaid by tens of thousands of abandoned oil & gas wells. That is what is known. Some estimate that number to be in the hundred of thousands. These old wells provide pathways for injected carbon to escape into communities or leach into groundwater supplies. Why are we going to take a risk of shoving more waste into the ground when we already can't deal with the massive issue of leaking wells as it is? If we really want to deal with the climate situation, we would focus on plugging all of these wells that are leaking methane every single day, and provide jobs to people in the process.

Carbon storage is unpredictable, largely untested in the US, and unsafe. Very few projects in the US are actively injecting CO2. Research shows that stored carbon has a tendency to shift and migrate in ways scientists are unable to predict. Migration of highly pressurized CO2 could cause dangerous ruptures, contaminate groundwater, and even trigger earthquakes.

State regulators have no experience with carbon injection wells and long-term CO2 storage. Ohio has a poor track record with the existing Class II waste injection well program, failing to protect communities and meet basic federal requirements. How can we be sure state regulators will be able to meet the minimum requirements and regulate the most complex type of injection wells—including round-the-clock monitoring and a commitment to long-term regulation—to keep us safe?

Economics

We would also like to make a comment on the economic impact study for the Tenaska project that was mentioned during proponent testimony. The way in which that study was presented was misleading. We are familiar with the study from WVU. And to cite the study directly, beyond the 3-year construction period, the Tenaska project would provide just 2 permanent jobs in Ohio. The study also states that the combined direct, indirect, and induced employment for the 3 counties of Ohio that were focused on, Carroll, Jefferson, and Harrison would be a mere 16 jobs. So, you can see from the study itself, these projects will not be economic game-changers for Ohio.

Why are these bills being rushed through state legislatures all of the sudden? The 45Q federal tax credit is what the companies have their eye on. That is why these bills are on the table. Carbon capture technology is extremely expensive and would be passed onto people like us, either through higher utility bills, higher taxes, or both. Experts estimate CCS technology would double the cost of power from existing gas-fired power plants and triple the cost from coal-fired plants.

CCS is “one of the most expensive and least effective ways to address climate change.” CCS technology has failed to achieve target capture rates and has never been successfully deployed long term at a major US power plant. Many carbon capture retrofits and pilot projects have been canceled or have failed.

CCS means more fracking for natural gas. CCS is essential for the development of “blue” hydrogen, which is made from fracked gas. Major projects like the Appalachian hydrogen hub would increase demand for gas fracked in Ohio. Fracking, transporting, and processing

methane gas releases climate-warming emissions and poses serious health threats to nearby residents. CCS does nothing to address emissions of methane, which is even more potent than CO2.

To date, most captured carbon has been used by drilling companies for “enhanced oil recovery,” a process that uses pressurized CO2 to push the last dregs of oil out of nearly spent wells. CCS is not carbon negative or even carbon neutral. Experts say CCS is a lifeline for the fossil fuel industry that allows oil and gas companies to reframe their products as climate-friendly. CCS projects are a permission slip to continue to pollute and a boondoggle that would be paid for by everyday people, while posing risks that are too great to ignore.

The best climate solution is a rapid transition to clean energy. Wind & solar energy combined with new energy storage, efficiency, and grid management technologies are more effective and less costly than retrofitting fossil fuel power plants for carbon capture. Research also shows that clean energy transition creates far more jobs and increases commerce than continued reliance on coal and gas.