Eliminating Fossil Fuel Pipelines — So We have a Healthy Future

“Protect the Air We All Share”

Banner at the Concerned Citizens for Clean Air Family Picnic
Eliminating Fossil Fuel Pipelines — So We have a Healthy Future
By Jocolyn Bowser-Bostick

In 1971, the following passage was placed in the Constitution of the Commonwealth of Pennsylvania:

“The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment. Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”

These sane and wise words might as well not exist because too many of our elected and appointed government officials, judges, and prosecutors refuse to enforce their meaning. As I will point out there are numerous examples of how pipeline companies have been allowed to grossly pollute the environment without meaningful consequences which therefore betray the above passage’s promise to current and future generations.
There are many patterns of behavior we need to stop and many actions we need to take to make sure we will have a healthy, safe and beautiful environment in which we, our future children, and our precious wildlife can thrive. The Green Party with its 10 Key Values makes sure these goals remain central to our purpose.

The federal and state environmental laws which polluting industries are supposed to respect and adhere to, enable them to release significant and damaging emissions that are legal and yet violate the limits of these environmental laws without suffering any serious criminal or financial punishments, even if they make numerous or hundreds of violations.

Some federal environmental laws include:

Clean Air Act which contains specific provisions that regulate air emissions from different sources.

Clean Water Act which makes it illegal for any person to release any pollutant from a source point into U.S. navigable waters unless they have an EPA permit.

Comprehensive Environmental Response, Compensation and Liability Act which dictates how hazardous waste sites, accidents, spills and emergency releases of contaminants should be handled.

Safe Drinking Water Act which authorizes the EPA to establish purity standards to keep safe aboveground and underground sources of water that are designated for or potentially designated for human consumption.

Pennsylvania State environmental laws such as the Air Pollution Control Act, PA Safe Drinking Water Act & the Clean Streams Law that have been created to bolster the national laws have great-sounding names and intent but either they lack the enforcement criteria to coerce, penalize and hold
criminally liable with jail time the leaders and owners of these dirty energy and other polluting businesses or the people charged with enforcing these various laws year after year refuse to perform their jobs so that human health, public safety and the health of the environment receives the utmost protection. The people of these companies should be but are not scared to defile our air, water, and land any more than people at a parade are scared of papier-mâché tigers.

The harms of green house gas (GHG) pollutants and the consequences of global warming — such as wildfires, droughts, floods, the wider and more persistent spread of plant-killing and disease-carrying insects, and increased disease in humans, animals, and crops — disproportionately affect the most vulnerable which includes children, the elderly, ethnic minorities, poor communities, and those with underlying health problems.

We’ve already seen the above stated devastating and fatal climate change consequences in the U.S. and in PA. If we don’t want these changes to become irreversible as scientists say will happen if we continue polluting at our current pace, then we must act as scientists urge by drastically cutting GHG emissions and making other changes of remediation. These cuts in pollution and the obligatory reforms in the
way our societies and economies work and live must be supervised by our elected governments and the PA Department of Environmental Protection (DEP).

The pollutants which the oil and gas extraction industries emit are supported by the pipelines that get their products to domestic and overseas markets. The pipelines and their infrastructure also release GHGs and contribute to global warming/climate change. If the PA state government and our local governments are serious about doing their part to fight climate change, promote the health and safety of their residents, and respond for the benefit of current and future generations to the changes already brought to our region by climate change — such as increased precipitation, flooding, tornadoes and more intense storms/hurricanes — then they can’t exclude eliminating the oil and gas wells and the pipelines that help keep the wells profitable and make their own contribution to climate change.

In the U.S. and PA there are three types of gas pipelines. Gathering lines are made up of small-diameter, low-pressure pipelines, which move raw natural gas from the wellhead to a natural gas processing plant or to an interconnection with a larger mainline pipeline.
Natural gas processing plants separate hydrocarbon gas liquids, nonhydrocarbon gases, and water from the natural gas before the natural gas is delivered into a mainline transmission system.

Wide-diameter, high-pressure interstate transmission pipelines that cross state boundaries and intrastate transmission pipelines that operate within state boundaries transport natural gas and natural gas liquids such as ethane, butane and propane from the producing and processing areas to storage facilities and distribution centers. Compressor stations which are large industrial facilities maintain the flow and pressure of gas/gas products by receiving them via the pipeline, re-pressurizing them, and sending them back into the pipeline system.

Local distribution companies deliver natural gas to consumers through small-diameter, lower pressure service/distribution lines which are regulated by state and/or local government agencies.

In total there are 89,296 miles of natural gas pipelines in PA: 11% or 9,822.56 miles are the large transmission lines; 1.2% or 1,105 miles are gathering pipelines; and 87.8% or 78,368.44 miles exist as the small distribution lines. Up to now only large transmission pipelines which fall under state and federal regulations have been mapped and their routes revealed to the public by the federal government.

Poster hanging at Tinicum Park during the Walk for Our Grandchildren’s visit to Bucks County
In November 2021, the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a final rule that expanded federal pipeline safety oversight to all onshore gas gathering pipelines that were previously unregulated and cover at least 425,000 miles. For the last 15 years with the increase in fracking, there has been a major increase in the volume of gas extracted and transported through gathering lines which has been made possible by the fact that increasingly, gathering lines have become similar to the larger interstate transmission lines with larger diameters, operating pressures, and associated risk factors. All onshore gas gathering pipeline operators will have to start filing incident reports and comprehensive annual reports and complying with other pipeline safety requirements, which up to now have not been sufficient to stop many highly destructive and lethal accidents.

All of these buried pipelines are more dangerous than landmines when you consider their incendiary/explosive power and the fact that leaks in them can release gases that make it hard or impossible to breathe as well as cause

*Homeowner’s front yard display across from the site of the Quakertown Compressor Station*
The #StopPennEast “Ripping of the Offers” in Northampton County

other physical problems and these dangerous gases can travel miles away from their source. Yet until recently we had laws that didn’t ensure the right of the public, the public’s elected representatives nor its first responders to know where 89% of these pipelines (the gathering and distribution lines) were buried. Only the private pipeline companies knew where their gathering and distribution lines were buried.

Amongst these federal and state government entities (FERC, PHMSA, PA DEP, PUC, and the PA Attorney General) which oversee, regulate and enforce safety standards, and have the ability to hold pipeline companies accountable for their actions, none of them alone or in collaboration with other agencies are willing to terminate the operation of a dangerous pipeline.
There is so much evidence on how dangerous these pipelines can be. In 2019 according to PHMSA for all types of pipelines combined there were 614 reported accidents which resulted in 10 people dying; 35 injuries; 2,113 evacuees; 86 fires; 28 explosions and $259 million in damages. The grim statistics of 2019 are actually slightly better than what was typical in each of the 9 preceding years. From 2010 through 2019 there were a combined 6,298 pipeline accidents which caused 140 fatalities; 656 injuries; 35,992 people to be evacuated from dangerous conditions caused by pipelines; 922 fires; 329 explosions; and $5,356,744,191 in damages.

For all pipelines except the service/distribution lines the top two reasons that they fail are because of equipment failure and corrosion failure. On average with each pipeline rupture more than 1,000 metric tons of high-global-warming-potential methane gas gets emitted into the atmosphere. Even without ruptures a significant amount of gas is lost into the air during transmission via millions of miles of pipelines.

There are many large-diameter, high-pressure transmission or gathering pipelines operational across PA or in varying stages of development. Operational ones include the
Mariner East 1 (ME1) pipeline carrying natural gas liquids (NGLs) (ME1 goes from eastern Ohio, through WV, and then through 17 counties of PA before ending at the Marcus Hook Industrial Complex), the natural gas carrying Revolution Pipeline and the 200-mile Atlantic Sunrise pipeline that transports natural gas from the Marcellus Shale region of northeastern PA through 10 PA counties to the Transco pipeline that runs from New York City to Texas.

There are 5 large pipelines that have been proposed and are cited on the DEP website. The following pipelines that have had serious public safety threats are still under construction: the 350-mile Mariner East 2 (ME2) and 2X (ME2X) pipelines that also carry Marcellus Shale created NGLs and mostly follow the same route as the ME1; the Shell Falcon Ethane pipeline, a 97-mile common carrier ethane pipeline crossing from Eastern Ohio through WV to Southwestern Pennsylvania in order to supply Shell's PA Petrochemicals Complex; and the Adelphia Gateway pipeline project which converts the last 50 miles of an existing 84-mile pipeline going through Bucks, Montgomery and Chester Counties and terminating at Marcus Hook in Delaware County from oil to natural gas (in 1996 the northern 34 miles of the pipeline from western Bucks Co. to Martins Creek terminal in Northampton Co. was converted to deliver gas).
There are numerous leaks of a different nature that occur while building these large gathering and transmission pipelines because they have many obstacles like roads and streams to go around or through. A popular method that the industry uses to avoid having to trench through these obstacles is horizontal directional drilling (HDD).

The HDDs often result in accidents known as inadvertent returns which are volumes of drilling mud that return to the surface via a series of underground voids, often karst geology or abandoned mines. Sometimes these leaks of drilling mud amount to thousands of gallons which can harm aquatic stream life and permanently destroy people’s water wells.

These underground voids are so prevalent in various parts of the U.S. and PA that pipeline operators often don’t avoid them and regulators don’t insist that they avoid these geologic features.

For example, drilling into the unique geology across PA for the construction of the ME2 and ME2X pipelines has caused hundreds of inadvertent returns to the soil and waterways and numerous sinkholes.
In the route the company took for these pipelines, the presence of karst and abandoned mines were well known prior to construction by the operator designing and implementing the HDDs and the regulators who approved their use, but they let the project proceed without any concern for the likely damage to the environment or the lives that would be harmed. For example, drinking water supplies were polluted across the entire length of the project.

A court ruling in April 2021 determined that Sunoco, the builder of the ME2 and 2X pipelines and a subsidiary of Energy Transfer Partners, L.P. (ETP), had failed to reveal all of the risks posed by a potential leak or rupture and that it was intentionally negligent in refusing to meet with local emergency officials in need of more information. This administrative law judge for the PA PUC found that Sunoco had violated many state and federal regulations. In its public information mailers, Sunoco failed to disclose risks such as personal injury, burns, asphyxiation, death, or property damage. In its mailings to emergency responders, Sunoco also failed in this reporting duty by not citing these dangers from a leak or stressing the
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Aerial images of Mariner East pipeline construction

possibility of igniting a chemical vapor cloud that could result from a leak. Sunoco was ordered to update its public information pamphlets and emergency notifications which must include police departments and school districts (40 schools are dangerously close to the ME pipelines).

NGLs are only liquid within the pipeline because of the high pressures and cold temperatures maintained there. Once these NGLs escape from the pipelines they are colorless, odorless, and heavier than air gases which expand rapidly and pool low to the ground in a flammable mist that can be difficult to detect. In this case despite the revelation that multiple dangers would exist once the pipelines were fully operational such as the fact that 345,000 people statewide could be impacted by a leak/serious accident and 340
schools, childcare centers, places of worship, and mobile home parks are within the blast zone of the pipelines the company was only required to do the following three things. Sunoco must meet with stakeholders, schools and first responders to develop emergency plans; it must ensure all of its pipelines are spaced far enough from other underground pipelines or utilities; and the pipelines must be buried at a safe depth. The judge also issued a $2,000 administrative fine to this subsidiary of a $33.8 billion company.

Marsh Creek Lake, located in Upper Uwchlan, Chester County, is approximately 535 acres and located in Marsh Creek State Park. The lake is used throughout the year for fishing and sailing, and is an important habitat for migrating birds. One of Sunoco’s many accidents occurred while it was installing the ME2 pipelines through a portion of this state park.

Halloween Display in Chester County near the Mariner East pipeline route
DEP reports on their website that “on August 10, 2020, Sunoco spilled approximately 8,000 gallons of drilling fluid that impacted a wetland, two tributaries, and Marsh Creek Lake. On August 11, 2020, Sunoco experienced a subsidence at this same location. These two incidents resulted in the Pennsylvania Department of Environmental Protection (DEP), as well as other state and local agencies who responded to the incident, taking compliance and enforcement actions, and requiring Sunoco to mitigate, remediate, and restore the area.”

Water Protector Halts a Heavy Equipment Operator during a Mariner East action in Chester County, PA

#HaltMarinerEast Action
As of December 6, 2021 nothing had been done to correct the contamination caused by Sunoco at Marsh Creek Lake. Therefore, as stated on DEP’s website “on December 6, 2021, DEP and the Pennsylvania Department of Conservation and Natural Resources (DCNR) entered into a Consent Order and Agreement (COA) with Sunoco that requires Sunoco to implement measures to assess, remediate and restore areas of Marsh Creek Lake, in Marsh Creek State Park”.

The COA also requires Sunoco to pay a civil penalty of $341,000 and natural resource damages of $4,000,000 to the state, and to post a bond of $ 4 million to ensure that work to restore the impacted water resources is completed.

Because of the COA, DEP approved major amendment applications for both Chapter 102 (Erosion and Sediment Control) and Chapter 105 (Water Obstruction and Encroachments) permits for the site that specify a new route and new installation method for the ME 2 pipeline at Marsh Creek Lake. Therefore, Sunoco was allowed to continue its work by not using the HDD method that resulted in the spill and the subsidence, but by using the open-cut method to lay the pipe with no drilling fluids used.

In total DEP has collected more than $24 million in penalties, from over 120 violations made by Sunoco as it built the cross-state ME2 pipelines that go through 2,700 properties and cut beneath 1,200 streams or wetlands. The PUC has imposed other penalties and on 10/5/2021 PA Attorney General Josh Shapiro filed 48 counts of environmental crimes against Sunoco and ETP based on their installation of the ME2 pipelines and released a 69-page grand jury report that details the many polluting crimes of Sunoco.

More examples of the damage that has resulted from the building of these ME2 pipelines include: Sunoco had to buy five homes in Chester County, PA. After its work damaged the aquifer and created sinkholes; backyards facing the pipeline construction were often flooded; Sunoco used unapproved chemicals in its drilling mud; and the company recently received a felony charge for not reporting pollution it caused.
The Revolution pipeline that crosses Butler, Beaver, Allegheny, and Washington counties is a 40.5-mile natural gas gathering pipeline which was built and operated by ETC Northeast Pipeline (ETC), a subsidiary of ETP.

On September 10, 2018, when the pipeline had only been in service for a week, the portion of the pipeline in Center Township, Beaver County experienced a landslide which caused a section of the pipeline to separate and release gas. The gas ignited, causing a fire that burned several acres of forested areas; destroyed a single-family home; killed several pets; damaged many vehicles and a barn; resulted in the evacuation of nearby residents; and destroyed six high-voltage electric transmission towers and an electrical line.

This explosion released 3 million cubic feet of gas and shot flames 150 feet into the air.
Concerned Citizen in Harrisburg pressing Governor Wolf to take action on pipeline safety

The company’s preconstruction analysis determined that the hillside where the blast started had the highest risk of landside on its rating scale, and yet they still built it there.

DEP’s investigation after the accident concluded that ETC had not stabilized a number of areas along the pipeline resulting in additional slides, had not maintained proper oversight during construction, and had failed to implement hundreds of best management practice controls to address stormwater runoff. Also, DEP found that along the length of the pipeline right of way during construction, ETC had illegally impacted numerous streams and wetlands.

Therefore, DEP issued a $30.6 million civil penalty to ETC/ETP for the above cited violations that led to the 2018 Revolution pipeline explosion and fire. The PUC after its investigation approved $1.975 million in penalties against ETC/ETP.
In 2019, DEP and ETC signed a COA which meant ETC accepted these financial penalties and agreed to address all of the flaws cited by DEP. After a detailed review by DEP, on December 13, 2019, DEP approved with conditions an implementation schedule of various changes that committed ETC to restore and mitigate stream and wetland impacts that occurred during the construction of the pipeline and to permanently stabilize all areas in and along the pipeline corridor.

DEP made the assessment that as a result of the COA, ETC had demonstrated to DEP its intention to correct its unlawful conduct and therefore, lifted a permit bar it had in place.

As a result of acts by ETC over several months, DEP allowed them to restart the Revolution pipeline in 2021 even though they had incurred hundreds of construction violations and its largest fines so far.

Better Path Coalition Action at the Pennsylvania Capital
So We have a Healthy Future

The people elected and appointed to government positions that are charged with protecting the health and safety of PA residents and preventing and eliminating dangerous conditions cannot respect or pursue two diametrically opposed visions/goals. The governor, legislators, and employees of state agencies such as the DEP and PA DCNR can’t work to preserve the pure water, clean air, health and beauty of our forests and parks and uphold laws similar to the Oil and Gas Conservation Law from PA Act 359 which states:

“It is hereby declared as an expression of policy to be in the public interest to foster, encourage, and promote the development, production, and utilization of the natural oil and gas resources in this Commonwealth, and especially those which may exist in the Lower Devonian Series and the Silurian and Cambro-Ordovician Geological Systems or from any formation below the Onondaga horizon, in such manner as will encourage discovery, exploration, and development without waste; and to provide for the drilling, equipping, locating, spacing and operating of oil and gas wells so as to protect correlative rights and prevent waste of oil or gas or loss in the ultimate recovery thereof, and to regulate such operations so as to protect fully the rights of royalty owners and producers of oil and gas to the end that the people of the Commonwealth shall realize and enjoy the maximum benefit of these natural resources....”

Laws like this one must be eliminated.
There are many actions we can take to mitigate the dangers of these fossil fuel pipelines and put us on a faster path to a healthier and safer future that’s free of fossil fuels.

We should repurpose pipelines and pipeline infrastructure to carry water to where there are droughts; use the pipelines to house the electrical lines as part of the modifications and improvements to the various regional electric grids. These changes can make our communities more resilient to the more frequent and intense storms, flooding, droughts, forest fires and other dire consequences of climate change.

High-volume hydraulic fracturing or fracking is a technique used to enable the extraction of natural gas or oil from shale and other forms of impermeable rock formations and must be stopped very soon so that there is much less product in need of being shipped to domestic and foreign markets with the aid of pipelines.

The Halliburton loophole (Energy Policy Act, 2005) legally allows oil and gas companies to not disclose to the public or authorities acting on their behalf the chemicals they use during the fracking process, however dangerous they
may be to humans, animals and the environment; and many of these chemicals are very dangerous.

For the benefits of stopping the deterioration and improving the health of the public, animal species, and the environment and mitigating climate change we must stop extracting oil and natural gas, not build any new fossil fuel pipelines, discontinue the building of unfinished pipelines, stop our reliance on fossil fuel pipelines currently in use as soon as possible, and make sure we close the Halliburton loophole by passing the Fracturing Responsibility and Awareness of Chemicals Act (the FRAC Act) that has been introduced in Congress multiple times since 2009.

Operating ME1 pipeline and the proposed ME2 pipelines will encourage and support expanded drilling for natural gas in the Marcellus Shale region. Methane which is the primary component of natural gas is 80 times more potent on global warming than CO2 emissions and our expanded use of it will hasten and intensify the worst effects of catastrophic climate change (droughts, harsher storms, etc.) that we have already begun to see here in the U.S. and around the world.
To our further detriment and another reason to shut down the Mariner pipelines is the fact that the bulk of these NGLs will be shipped to Scotland to make plastics.

Pennsylvanians’ lives are being put at risk by many of these pipelines to either get very little energy or significant energy that should be replaced by clean and renewable alternatives that impose no health hazards on anyone.

Direct Action along the Mariner East Pipeline route in Chester County

Many people who have worked or lived near the gas drilling and fracking operations in the Marcellus Shale region and other U.S. areas have experienced noise pollution, smog, poisoned drinking water wells, skin rashes, constant headaches and body aches, respiratory problems, cancers, other health problems, physical injuries and deaths. Wildlife, livestock, and domesticated animals have also been seriously sickened or killed by these fracking and drilling operations. Profits and wages for a few do not justify this torment and it seems more ridiculous when you know we can satisfy all our energy needs through much safer alternatives such as improved energy efficiency and clean, renewable energy sources.
We should double down on any policies and actions that will make our environment and lives safer and healthier because that will make us more resilient, less likely to suffer the harmful consequences of climate change, and better able to survive any pandemics that come along with less mortality and fewer physical, emotional, and economic scars.

U.S. taxpayers annually spend many billions of dollars subsidizing new fossil fuel exploration, production, and consumption, which directly affects how much oil, natural gas, and coal gets produced—and how much clean energy doesn’t. A conservative estimate from Oil Change International puts the U.S. total at about $20.5 billion annually, including $14.7 billion in federal subsidies and $5.8 billion in state-level incentives. Oil and gas receive 80 percent with the rest supporting coal. Most of the subsidies are in the form of tax deductions and exemptions and other tax loopholes and accounting tricks that result in massive avoided
costs for fossil fuel producers, and all of them should end within the next two years. We must subsidize more intensely energy efficiency measures, sustainability policies, and all forms of clean and renewable energy.

The point of view of the Green Party of PA is that there is no sane reason to be maintaining or adding to the pipeline infrastructure that we have in PA.

In fact, on November 14, 2021 the assembled delegates of the Green Party of Pennsylvania (GPPA, www.gpofpa.org) voted unanimously to oppose any proposed or under construction fossil fuel pipelines in PA and be in favor of dismantling in-use fossil fuel pipelines as we adopt as soon as possible a clean energy infrastructure.

This attitude is supported by the research being done and the recommendations made by the vast majority of climate scientists who want to see the human race survive for many millennia.

In PA, government officials, business leaders, and all PA residents should be working with the utmost urgency to eliminate the use of fossil fuels and the products created from them such as plastics and petrochemicals from our commercial activities and all aspects of our lives. You may ask why must we do this and the reasons are to protect human health, preserve the human species, and prevent the extinction of other species we treasure or are vital to the ecosystems of a flourishing Earth.
The Intergovernmental Panel on Climate Change (IPCC) is a UN entity comprised of 195 member nations and is responsible for advancing knowledge on human-induced climate change.

As the IPCC states on its website, it was created to provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options.

The action of leaving fossil fuels in the ground, not developing them, and phasing out their use as soon as possible is what we must do, and it is perfectly in line with the IPCC’s recommendations which will keep global average temperature rise at or below a 1.5 °C difference w.r.t. preindustrial levels which will spare us even worse consequences from global warming than we are already witnessing.
The Green Party of Pennsylvania wants to give credit and special thanks to all those that made this project possible:

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For further information about GPPA, please visit www.gpofpa.org

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For more information, please see:

https://www.gpofpa.org/an_essay_against_fossil_fuel_pipelines

Our Ten Key Values, Green Party of the U.S. https://www.gp.org/ten_key_values

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PA Greens Push for an End to Fracking; 10/4/20

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Bucks County CCAP https://twitter.com/BucksCCAP
The Next Generation spreading the message to Stop PennEast