



December 20, 2019

Mr. David Althoff Jr.
Director, DEP Energy Programs Office
RCSOB
P.O. Box 8772
Harrisburg, PA 17101
dalthoff@pa.gov
717-783-8411
Submitted via DEP Portal

Re: Comments from the Delaware Riverkeeper Network regarding the Pennsylvania DRAFT Energy Development Authority's Energy Development Plan, 7200-RE-DEP5217, November 16, 2019

Dear Mr. Althoff,

Delaware Riverkeeper Network (DRN) submits these comments on the November 16, 2019 DRAFT Pennsylvania Energy Development Authority's Energy Development Plan prepared by the Pennsylvania Energy Development Authority (PEDA). Delaware Riverkeeper Network is an environmental river advocacy organization with over 23,000 members that work and live throughout the Delaware River Watershed's four basin states, including Pennsylvania.

The Pennsylvania Energy Development Authority (PEDA) is an independent public financing authority that was created in 1982 by the Pennsylvania Energy Development Authority and Emergency Powers Act and that was revitalized through an April 8, 2004, Executive Order. As part of the statute, PEDA is charged with developing and implementing an Energy Development Plan (Plan). The board of directors issued the first Plan for public comment Sept 26, 1984. After reassessing its mission and objectives in 2008 and 2014, the Board issued an updated Plan. It is not clear to DRN what changes were made since 1984 to present but it is clear that needed changes based on climate science are missing from the current Plan.

According to the draft Plan, the authority's mission is to finance clean, advanced energy projects in Pennsylvania. The Plan states projects could potentially qualify for funding from the Authority include solar energy, wind, low-impact hydropower, geothermal, biomass, landfill gas, fuel cells, integrated gasification combined cycle, waste coal, coal-mine methane, and demand management measures. The authority presently awards grants, loans, and loan guarantees and some of its past projects are highlighted in this story map here: <http://padep-1.maps.arcgis.com/apps/Shortlist/index.html?appid=f8c1fd0a26434771b523cea524db6fd4>. The plan states

DELAWARE RIVERKEEPER NETWORK
925 Canal Street, Suite 3701
Bristol, PA 19007
Office: (215) 369-1188
fax: (215) 369-1181
drm@delawareriverkeeper.org
www.delawareriverkeeper.org

tax-exempt and taxable bond financing for clean, advanced energy projects also are available through the Pennsylvania Economic Development Financing Authority (PEDFA).

As the plan outlines on Page 5, Pennsylvania is lagging behind on much needed advancements to shift our energy sources to truly renewable energy and away from fossil fuels and schemes like carbon sequestration. The Plan cites that in 2018, Pennsylvania's natural gas production exceeded 6.2 trillion cubic feet, one fifth of the total U.S. gas production and Pennsylvania is the second largest net supplier of energy to other states in the U.S. (EIA 2019). Natural gas, with Marcellus shale exploitation and fracking, has grown rapidly from just about 1% of net electricity generation 15 years ago to 33.4% as of April 2019. While net electricity generation from renewables have only increased in PA from 3% in 2010 to 5.6% as of April 2019. Pennsylvania is third (had been fourth) in coal production, 22nd in solar capacity, 14th in hydro, and 18th in wind capacity (EIA 2019, SEIA Q1 2019, AWEA 2019). These numbers show the environmental legacy and failure Pennsylvania continues to put forth in policies that will lock us into severe consequences of climate inaction.

DRN has concern for what the Plan lists as potentially "clean" and viable options for funding through PEDA. With the threat of climate change, it is critical and clear that PEDA and any of its funded projects in the pipeline or in the future phase out all exploitation and use of fossil fuels including coal and natural gas projects, including investment in more gas power plants (as coal continues to decline). This shift must happen immediately and a program like PEDA could facilitate this needed course of action based on the climate science. Pennsylvania can no longer continue to kick the can down the road nor fund projects with these limited tax dollars and programs that go against the tremendous cuts we need to make now to avoid some of the most catastrophic consequences of climate inaction that we should have begun in the 1980's (when this authority was begun). It is critical that PEDA does not use tax payer dollars or private dollars leveraged to support and fund continued research or projects that lead to additional mining and extraction of coal and natural gas in the state, so called part of PA's "indigenous energy resources" in the Plan. The Policy outlined on page 8 of the Plan is significantly flawed and flies in the face of challenges Pennsylvania and the globe will see with climate change and continued burning of fossil fuels. DRN suggests under policy objectives, striking natural gas and waste coal from Bullet 1. DRN suggests adding a point that all sources and impacts of each source are considered from cradle to grave to ensure the energy consumption footprint and any new technologies invested in are efficient and comprehensively analyzed. For example, the full impact of bio-diesel depending on how it is made or fracking from wellhead to final use should be considered fully. DRN suggests adding data on health related issues of climate and burning more fossil fuels to strengthen the reasoning behind selecting truly sustainable and renewable projects and conservation projects only through this program.

DRN suggests that the mission of PEDA outlined on Page 3 clearly put health and renewable energy as a priority while fossil fuel projects and "indigenous energy resources" based on fossil fuel extraction are removed. To suggest mitigation of climate change while touting indigenous fossil fuel sources as possible projects is not appropriate.

Additional data should be added to the Plan to reflect the true cost of methane and natural gas exploitation. The shale gas being developed in Pennsylvania emits methane, a GHG that is 100 times greater in absorbing heat than carbon dioxide and 86 times greater when averaged over a 20-year time frame. Globally, meeting the COP 21 Paris goal to limit warming to below 2°C requires zero GHG emissions from power generation after 2017. Here in Pennsylvania, the Commonwealth must not attempt to incentivize natural gas (or any fossil fuel) development by the exemption of new plants from its subsequent Clean Power Plan or investment in this Authority's Plan that is currently under revision. Coal, oil, and natural gas all need to be left in the ground.

This Plan must go farther than the DEP's most recent Climate Action Plan that targets reductions in greenhouse gas emissions (GHG) by 2025 and 2050 which is neither sufficient if Pennsylvania is to make

meaningful progress towards reducing the Commonwealth's contribution to global climate change nor is it achievable if natural gas development, including extraction, storage, transmission and end use, continues in Pennsylvania¹. With the rise of proposed gas power plants as well as proposals for new LNG plants and export of LNG by ship and transport by rail, and expansion of pipelines to export markets, Pennsylvania is on the wrong path.

DRN suggests appointing environmental leaders in conservation to fill the vacant board of director seats. It appears at least 2 general positions are vacant and there are also two vacancies on the PA House of Representatives as well as a Treasurer vacancy. On Page 9, DRN believes it is critical that projects funded are required to include accurate environmental performance data as suggested and furthermore, that data should include cradle to grave calculations as well as health calculations to lead to accurate economic and environmental findings for each project. These types of reports are more and more common and DRN supplies a few examples in the attachments to reflect true costs of technologies. On Page 10, DRN supports PEDAs request to ensure true transparency of the meetings and projects considered and funded – decisions on projects should be open to the public and available to be viewed online and through social media. DRN also believes private match dollars are essential – viewing the list of recipients under PEDA there are many deep pocketed corporations receiving funding and tax relief and those relationships must be scrutinized and in full light of the return on investment that will support clean air and a healthy environment.

Under criteria for Evaluating Proposed Programs and Projects on Page 11, the first bullet about “indigenous energy resources” should be removed or specified not to include fossil fuels - as PEDA should not be supporting expansion of fossil fuel markets or exploitation. More details are needed in this section to also define what is meant by “clean advanced energy technology”. DRN suggests under the second to last bullet on Page 11, replacing “greater energy diversity in PA energy resources” to “greater renewable energy diversity in PA renewable energy sources” (again to avoid more exploitation and burning of fossil fuels).

DRN agrees that it is clear that we need to reduce GHG emissions but we do not agree that it is acceptable or possible to reach a goal of reduction by following the proposed Plan. The attached documents and peer-reviewed papers explain that the Commonwealth must get off fossil fuels as quickly as possible, that no new GHG emitting power plants can be justified in the Commonwealth and the use of fossil fuels in all energy sectors must be replaced by truly energy efficient renewable energy sources to provide an effective climate change action plan. Truly renewable projects are what this Authority should include in the 2019 Plan to push the innovation necessary. Furthermore, this innovation in the Plan should not include some of the schemes that companies may put forth in comment – such as CCUS (carbon capture utilization and sequestration) and more investment in natural gas power plants which burn methane.

DRN advocates that Pennsylvania adopt a much more aggressive plan that does not include fossil fuel development and relies on energy efficiency, conservation, and renewable energy sources that can be sustained over the long term. Some of the projects outlined in PEDA's story map look to do just that but more needs to be done. DRN supports the development of a Plan that adopts a hierarchy of goals that places clean air, water, and a healthy environment for communities and workers, including healthy and biologically diverse habitats and ecosystems, as the top priority based on the tenants of the Environmental Rights Amendment – Article 1, Section 27 – of the Pennsylvania Constitution.

Pennsylvania Constitution Article 1, Section 27:

“The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic

¹ Here's what Pennsylvania is doing to address climate change — and why politics is making it difficult.

<https://www.inquirer.com/news/pennsylvania-climate-change-governor-wolf-carbon-state-action-20190918.html?fbclid=IwAR3s74eBz6xpQD8qDtkg-mLbTrOAgQ4U160kcDyekJItavjmq-OSjxgiwc>. Philadelphia Inquirer. September 18, 2019

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."

Thank you for your time and consideration of our comments.

Respectfully submitted,



Maya K. van Rossum
the Delaware Riverkeeper



Faith Zerbe
Director of Monitoring

Attachments:

1. Paper entitled "Sustainable Energy Options" excerpted from the writings of Mark Z. Jacobsen. The paper is a chapter from "Unsafe and Unsustainable" published by Delaware Riverkeeper Network, 2014.
https://www.delawareriverkeeper.org/sites/default/files/resources/Reports/DRN_Report_Unsafe%2BUnsustainable_fr.pdf
2. Testimony of Robert W. Howarth, Ph.D., Earth Systems Scientist, David R. Atkinson Professor of Ecology and Environmental Biology, Cornell University to Pennsylvania House Democratic Policy Committee, March 21, 2016.
3. Testimony of Mark Szybist, Esq., Senior Program Advocate, Natural Resources Defense Council, to Pennsylvania House Democratic Policy Committee March 21, 2016.
4. Testimony of Donald A. Brown, Scholar in Residence and Professor, Widener University Commonwealth Law School to Pennsylvania House Democratic Policy Committee, March 21, 2016.
5. Pfeiffer A et al. The '2 degree capital stock' for electricity generation: Committed cumulative carbon emission from the electricity generation sector and the transition to a green economy. Appl Energy (2016). <http://dx.doi.org/10.1016/j.apenergy.2016.02.093>
6. Potential Environmental Impacts of Full-development of the Marcellus Shale in Pennsylvania
Lars Hanson, Steven Habicht, and Paul Faeth September 2016
https://www.delawareriverkeeper.org/sites/default/files/MarcellusPA_FullReport.pdf
7. Powering the Commonwealth's Energy Needs with 100 Percent Renewables by 2050. October 13, 2016. Synapse Energy Economics Report.
https://www.delawareriverkeeper.org/sites/default/files/Envisioning_PAs_Energy_Future_1.pdf
8. Potential Impacts of Unconventional Oil and Gas on the Delaware River Basin March 20, 2018. FracTracker Alliance Issue Paper / Main Author: Matt Kelso.
https://www.delawareriverkeeper.org/sites/default/files/FT-WhitePaper-DRB-2018%20%28003%29_0.pdf
9. Envisioning Pennsylvania's Energy Future Using renewables to achieve a zero-emissions future. December, 2016 Synapse Energy Economics Factsheet
https://www.delawareriverkeeper.org/sites/default/files/Envisioning_PAs_Energy_Future_Factsheet%20final.pdf