



Clean Energy & Natural Climate Solutions in Pennsylvania

Economic and Job Creation Opportunities Amidst the COVID-19 Crisis

Pennsylvania is a state ripe for climate-smart investments. Clean energy is already a fast-growing industry in the state, and provided 50,000 *more* jobs than the fossil fuel industry before the COVID-19 pandemic.¹ Still, as one of the nation's major coal and natural gas producers, further investments could help ease Pennsylvania's transition toward renewable energy while creating jobs.²

Pennsylvania has lost tens of thousands of energy jobs due to economic fallout from the COVID-19 pandemic.³ Federal stimulus is one opportunity to bring these jobs back, while creating new jobs in other sectors like land restoration. One recent report found that a \$99.2 billion national stimulus package could grow PA's clean energy workforce by 28,800 jobs for at least five years and generate \$11.2 billion in economic activity in the state.⁴ Another proposal finds that channeling \$10.8 billion into PA annually for the next 10 years to support good jobs in sustainable manufacturing, restoration, and broadband could create 252,000 jobs and reduce average household spending on energy by 40 percent.⁵

Natural climate solutions are strategies that support or enhance the ability of natural systems to mitigate climate change (enhancing carbon removal or storage) and/or strategies that increase the resilience of human and wildlife communities to climate impacts.

Investments in natural climate solutions could also provide numerous economic and environmental benefits to PA while fighting climate change. Abandoned mine land reclamation is one great example. In Pennsylvania, restoring streams impacted by abandoned mine drainage could produce more than \$106,000 in local economic benefit per stream mile.⁶ A revamp of the Civilian Conservation Corps could expand forests, wetlands, and sustainable farming while sequestering carbon and creating jobs: more than 53,000 annually in PA from 2021-2030 for a \$4.7 billion investment.⁷

Below are some policies and priorities that could help PA reduce greenhouse gas emissions and speed the state's transition to zero-carbon energy production.



Credit: Governor Tom Wolf

Federal Policy Opportunities for Clean Energy and Natural Climate Solutions in PA

Energy Efficiency Revolving Fund and Innovative Financing Act

- Draft National Wildlife Federation legislation would create a new Energy Efficiency State Revolving Fund to assist states with financing energy efficiency projects across commercial, industrial, and municipal, university, school, and hospital sectors, plus community-scale residential projects. The fund would be paired with grants to give direct assistance to households and small businesses in rural and low-income areas.
- A \$5 billion federal program could deliver \$115 million in new investments to PA for the installation and maintenance of efficient lighting, equipment, and appliances in homes and businesses.⁸

Carbon-Targeted Clean Energy Tax Credit

- Draft National Wildlife Federation legislation proposes supplementing existing federal production and investment tax credits for clean energy with a new technology-neutral, carbon-targeted tax credit. This credit would be available to all clean energy sources, including utility scale and distributed renewables and low/zero-emission fossil fuels, such as efficient natural gas with carbon capture, utilization, and storage.
- The credit would also target clean energy subsidies to states with the most carbon-intensive electricity grid, driving new clean investment into the areas of the country that need it the most, like Pennsylvania.

Create Resilient Communities and Ecosystems through Natural Infrastructure Investments

- Natural infrastructure, like reforestation or floodplain restoration, can mitigate risk, provide carbon sinks, improve water quality, and more. Natural infrastructure investments can help fossil fuel-dependent communities create jobs, build diversified economies, and improve the local environment.
- On average, per \$1 million invested, the coal industry creates 6.86 jobs and the oil and gas industry creates 5.18 jobs. Conservation, meanwhile, creates 20.3 jobs. Reforestation, land and watershed restoration, and sustainable forest management create 39.7 jobs.⁹
- A \$4.1 billion annual federal investment in land restoration and agriculture in Pennsylvania could create 44,610 jobs per year over the next decade.¹⁰



H.R.2156 / S.1232 Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More (RECLAIM) Act of 2020

- This bill would provide funds to States and Indian tribes to promote economic revitalization, diversification, and development in economically distressed communities through the reclamation and restoration of land and water resources adversely affected by coal mining.
 - The bill has passed committee in the House and is awaiting Senate committee action.
-

H.R. 2 Section 84101 / S. 4642 Establishment of Federal Orphaned Well Remediation Program

- This section would create a program to reclaim, remediate, and close orphaned oil and gas wells. It provides funds to the Departments of Interior and Agriculture through 2024 for remediation on public, State, Tribal, and private lands.
- A 2020 report found that a significant federal program to plug orphan wells could create as many as 120,000 jobs if 500,000 wells were plugged.¹¹
- The bill has passed the House and is awaiting action in the Senate.

S.2185 Good Jobs for 21st Century Energy Act

- This bill would provide tax incentives for the clean energy, manufacturing, or energy efficiency projects of companies meeting high labor standards. It would also create a Clean Jobs Workforce Hub to bring unions, employers, industry, and stakeholders together to ensure that workforce development and training programs are in place to rise to future clean energy needs.¹²
- The bill is awaiting committee action in the Senate, and has not yet been introduced in the House.

H.R. 4269 / S.2452 Climate Stewardship Act of 2019

- This bill would provide incentives for agricultural producers to carry out climate stewardship practices on more than 100 million acres of farmland, plant more than 15 billion trees on deforested lands, expand urban forestry, invest in renewable energy for farmers and rural small businesses, reestablish the Civilian Conservation Corps, and more.¹³
- The bill is awaiting committee action in the House and Senate.

H.R. 7264 / S. 3684 21st Century Conservation Corps for Our Health and Our Jobs Act

- This bill would provide additional appropriations to the Departments of Agriculture, Interior, Homeland Security, Labor, and Commerce for FY2020 to create jobs in rural economies, support wildfire prevention and preparedness, and protect the health and safety of communities.¹⁴
- Additional related bills have been introduced: H.R. 2358/S. 4434; H.R. 5176; H.R. 2274.
- The bill is awaiting committee action in the House and Senate.

References: (1) E2. 2020. Clean Energy Jobs Pennsylvania: Pennsylvania's Key to Economic Recovery. <https://e2.org/wp-content/uploads/2020/09/Clean-Jobs-Pennsylvania-2020.pdf> (2) U.S. Energy Information Administration. 2020. Pennsylvania Energy Profile. <https://www.eia.gov/state/?sid=PA> (3) BW Research Partnership. 2020. Pennsylvania Energy Employment Report. <http://files.dep.state.pa.us/Energy/Office%20of%20Energy%20and%20Technology/OETDPortalFiles/2020EnergyReport/2020PAEnergyEmploymentReport.pdf> (4) Op. cit. 1 (5) ReImagine Appalachia. ReImagine Appalachia Blueprint Creates 252,000 jobs in Pennsylvania. 2020. https://reimagineappalachia.org/wp-content/uploads/2020/10/PA-Summary_-_ReImagine-Appalachia_Pennsylvania-PeriBrief_10-20-20.pdf (6) Pennsylvania Department of Environmental Protection. 2019. Pennsylvania's Surface Mining Control and Reclamation Act Funded Abandoned Mine Lands Program: Past, Present, and Future. http://files.dep.state.pa.us/Mining/Abandoned%20Mine%20Reclamation/AbandonedMinePortalFiles/AML_Fact_Sheet_Final_2019_03_11.pdf (7) Op. cit. 5 (8) NWF 2020 Analysis (9) Garret-Peltier, H. and R. Pollin. Job Creation for Investment. University of Massachusetts Political Economy and Research Institute. https://grist.files.wordpress.com/2010/02/job_creation_for_investment_-_garrett-peltier.pdf (10) Pollin, R., J. Wicks-Lim, S. Chakraborty, and G. Semieniuk. Impacts of the ReImagine Appalachia and Clean Energy Transition Programs for Pennsylvania: Job Creation, Economic Recovery, and Long-Term Sustainability. 2020. https://www.peri.umass.edu/images/PA_Prelim_Summary_10-19-20_FINAL_230.pdf (11) Bordoff, J. D. Raimi, and N. Nerurkar. 2020. Green Stimulus for Oil and Gas Workers: Considering a Major Federal Effort to Plug Orphaned and Abandoned Wells. <https://www.energypolicy.columbia.edu/research/report/green-stimulus-oil-and-gas-workers-considering-major-federal-effort-plug-orphaned-and-abandoned> (12) Merkley, J. 2020. Good Jobs for the 21st Century Energy Act. <https://www.merkley.senate.gov/imo/media/doc/Good%20Jobs%20for%2021st%20Century%20Energy%20Act%201%20pager.pdf> (13) Booker, C. 2020. With FDR's New Deal as Blueprint, Booker Introduces Climate Change Bill Focused on Investing in Farm Conservation Programs, Reforestation, and Wetlands Restoration. <https://www.booker.senate.gov/news/press/with-fdrs-new-deal-as-blueprint-booker-introduces-climate-change-bill-focused-on-investing-in-farm-conservation-programs-reforestation-and-wetlands-restoration> (14) Wyden, R. 2020. 21st Century Conservation Corps for Our Health and Our Jobs Act. <https://www.wyden.senate.gov/imo/media/doc/21st%20Century%20Conservation%20Corps%20for%20our%20Health%20and%20our%20Jobs%20Act%20of%202020%20ne%20Pager.pdf>

Contact: Shannon Heyck-Williams, Director of Climate & Energy Policy, (202) 797-6632, heyckwilliamss@nwf.org
Jessica Arriens, Senior Coordinator, Climate & Energy, (202) 797-6617, arriensj@nwf.org
