









# Pennsylvania at the Nexus of a New Low-Carbon Industrial Revolution RISE PA Coalition Action Plan

Over the past few years, the federal government committed more than \$2 trillion through the Inflation Reduction Act, the Bipartisan Infrastructure Law, and the CHIPS Act. These climate infrastructure investments represent more than just programs. They are a blueprint for creating a new economy, one with the potential to deliver progress on economic and climate objectives in a way that centers workers and communities.

The federal policy landscape, however, has now shifted. Federal climate programs and federally-funded climate infrastructure projects have been or are being, eliminated, cut and/or canceled. This makes Pennsylvania's RISE PA program not only important, but essential for continuing the nation's progress towards the new energy economy and demonstrating the payoff from landmark federal climate investments.

#### The Rise PA Program: Win-Win-Win

"Reducing Industrial Sector Emissions in Pennsylvania," or RISE PA, is a \$396 million statewide industrial decarbonization grant program with enormous potential to increase the competitiveness of Pennsylvania industry, create thousands of well-paying jobs, slash toxic emissions and greenhouse gases from industrial facilities, and improve public health. At nearly \$400 million, RISE PA funding—awarded via a US Environmental Protection Agency Climate Pollution Reduction Grant (CPRG) and authorized under the Inflation Reduction Act of 2022—is the second largest federal grant in Pennsylvania history and makes Pennsylvania one of the nation's largest federal climate infrastructure grant winners.

RISE PA, with its primary goal of promoting industrial energy efficiency and reducing greenhouse gas emissions also requires contractors to offer paid on-the-job-training opportunities for the next generation of workers while offering bonus awards for meeting high labor standards and maximizing benefits to communities. The state of Pennsylvania's RISE PA program, as designed, serves as a catalyst for "win-win-win" investments that benefit industry, communities, the environment and public health. It also represents a model for neighboring states and the federal government (eventually) to secure the region's and nation's place as a hub for sustainable manufacturing.

With the Rise PA program, Pennsylvania is now uniquely positioned to lead the nation in preparing industry to compete in the low-carbon economy of the future.

Pennsylvania's industrial sector – defined by RISE PA to include manufacturing, coal mining (active and abandoned), natural gas production and distribution facilities, and agriculture – accounts for \$172 billion in state domestic product and 13.4% of jobs. The sector also accounts for nearly 25% of the state's greenhouse gases (GHG) emissions. The manufacturing sector alone contributes \$111 billion to the state's gross domestic product and provides close to 1 out of every 10 of the Commonwealth's jobs, most of which pay relatively decently.

#### RISE PA can help:

- Prepare the region's industry to compete in the low-carbon economy, while also reducing energy costs, and establishing more reliable energy sources;
- Create access to family-sustaining union careers and paid on-the-job training apprenticeship opportunities (apprentices on RISE PA projects must account for at least 15% of the total construction work hours);
- Reduce harmful air pollutants as well as greenhouse gas emissions and improve the health of our communities; and,
- Engage communities in the process to ensure that they benefit.

#### Program implementation, however, is never simple.

Decarbonizing industry while ensuring the creation of high-quality jobs and maximizing benefits to communities requires alignment across state agencies, local governments, labor, community organizations, workforce developers, utilities, and private actors. By bringing these diverse stakeholders together, and providing them the tools and information they need, Pennsylvania can move faster, smarter, and more equitably than if everyone goes it alone.

## The Rise PA Coalition Action plan is intended to provide a clear roadmap for how to maximize RISE PA's impact.

ReImagine Appalachia's May 2025 <u>Proposal to BuildUS</u> committed to the creation of a Rise PA Coalition Action Plan designed to:

- 1. Maximize the Impact of Rise PA Program
- 2. Maximize the Success & Demonstrate the Value of the Rise PA Bonus Awards for Fair Labor Practices and Community Benefits
- 3. Make Rise PA a Model for Decarbonizing the Nation

<sup>&</sup>lt;sup>1</sup> The "industrial sector" as defined by RISE PA – and ordinarily in carbon emissions estimates –refers to manufacturing and the sectors that produce raw materials, including mining, agriculture, construction, and pipelines. GDP shares are based on Bureau of Economic Analysis data for 2024 available from <a href="https://www.bea.gov/itable/regional-gdp-and-personal-income">https://www.bea.gov/itable/regional-gdp-and-personal-income</a>.

### **Background**

In spring of 2025, Relmagine Appalachia and Keystone Research Center, with support from Build US, formed a planning committee to organize a convening of diverse stakeholders—potential Rise PA applicants, program officials, community groups, philanthropy and labor leaders, among others.

The **Planning committee** included Reimagine Appalachia, Keystone Research Center, the Ohio River Valley Institute, RMI, Rural Thermal Collaborative, Clean Air Council and BlueGreen Alliance.

At our inaugural meeting in May of 2025, our group decided to move quickly so that we could be helpful to first round Rise PA applicants with a deadline just three months away. There were three tracks of projects in this first round: small, medium and large. Moving quickly seemed particularly critical because the State of Pennsylvania was eager to allocate the bulk of the monies for medium and large projects in the initial round of funding.

In just a few weeks, the planning committee pulled together a series of meetings that we affectionately refer to as a "digital sandwich":

- We had our first convening, virtually, on June 24th, "<u>Rise PA: Learn, Share and Collaborate on Project Concepts</u>"
- 2. We had an in-person convening in Pittsburgh in the middle of the month of July on an evening followed by a full day the next day for programming, networking and office hours with experts and Rise PA program staff.
- 3. Then we had another virtual convening on August 7th, "<u>Tying it up: Final Feedback for Project Concepts</u>,"

These convenings sought to catalyze and support more and stronger proposals, while also identifying needs and gaps in assistance that could become part of a coalition action plan outlining how to fully maximize Rise PA's potential. We were thrilled to have help from the Rise PA team, including Louis Krak and Catherine Tully to participate and recruit more applicants. We had some rich conversations, partially captured in notes online and videos available at <a href="https://keystoneresearch.org/risepa/">https://keystoneresearch.org/risepa/</a>.

#### 1. Maximize Impact of RISE PA Program

**Coalition Goal:** Maximize interest and investments in industrial decarbonization by supporting high-quality RISE PA applications while providing ongoing implementation support.

#### **Coalition Action Steps**

- <u>Provide</u> RISE PA program's first-rate staff with coalition support that can offer feedback, space for networking across stakeholders, and access to national experts.
- <u>Strengthen</u> technical assistance available to companies. Identify and profile industrial decarbonization technical assistance providers. Support matchmaking between resource providers and companies. Build a network of resource providers to avoid duplication.
- <u>Convene</u> decarbonizing companies, along with technical assistance providers, to boost peer learning across sectors and technologies, spread effective practices, and spur innovation so that by the end of RISE PA (2029) Pennsylvania companies are on the cutting edge of global decarbonization. Seek to identify and adopt best practices for peer learning on industrial decarbonization such as <u>California's Regional Energy Networks</u>.
- Focus one component of convening and peer learning on unionized contractors and industrial companies, capitalizing on worker voice and robust joint labor-management apprenticeship and training funds to boost industrial decarbonization. In conjunction with planning convenings of unionized companies and contractors:
  - <u>Survey</u> unionized contractors (mechanical/HVAC, electrical, sheet metal etc.) about their industrial decarbonization capabilities and diffuse the findings, including by enhancing Keystone Research Center's map and downloadable database.<sup>2</sup>
  - <u>Catalog</u> the industrial decarbonization related training programs delivered by joint labor-management training partnerships.<sup>3</sup>
  - Assess the willingess of unionized contractors and their labor partners to jointly invest in peer learning and marketing to enhance these contractors' industrial decarbonization market share in PA.

<sup>&</sup>lt;sup>2</sup> Building trades unions and their employer association partners negotiate many different types of labor-management training funds, the best known of which include joint apprenticeship and training funds and health and retirement benefit funds. "Market development" funds in some cases invest in marketing and business development research to help expand unionized contractors' market share. Industrial decarbonization funds could blend some skill building and peer learning with marketing to brand unionized contractors as the highest performing industrial decarbonization firms.

<sup>&</sup>lt;sup>3</sup> This handbook would flesh out the overview of such training online at <a href="https://keystoneresearch.org/wp-content/uploads/RISE-PA-Training-Joint-App.-Programs-2.pdf">https://keystoneresearch.org/wp-content/uploads/RISE-PA-Training-Joint-App.-Programs-2.pdf</a>.

- Map out strategic phases of RISE PA implementation, starting with efficiency first and accessing low-hanging fruit, but then exploring more innovative approaches with potential for greater cost savings and emissions reduction.
- **Profile** the renewable energy potential of Pennsylvania for example, this geothermal assessment has already been done. Distinguish heat versus electricity needs, and highlight cost-saving routes to maximizing renewable use for as much of industrial energy use as possible.
- <u>Assess</u> the potential of a Pennsylvania partnership with Project Innerspace to accelerate use of geothermal energy in PA for industrial uses.
- <u>Explore</u> behind the meter, joint energy generation opportunities—on-site, nearby, co-location—for large-load industrial electricity users (data centers, green steel etc.) and modernized industrial parks that can slash emissions at competitive costs and without raising prices for non-industrial users.
- Communicate to companies the competitive benefits of industrial decarbonization and make it easier for them to bite the bullet.
  - Publicize company success stories.
  - Document the benefits, i.e. energy and cost savings, competitiveness advantages, community benefits.
  - Survey companies to better understand barriers to advancing industrial decarbonization projects.
- Map opportunities for industrial renewable power generation potential (solar, geothermal, etc.) Understand where heat can be used directly and identify combined heat and power and waste heat recovery opportunities. Know solar hotspots. Develop a primer on cost savings.
- Convene multiple state and federal programs, utilities, and responsible investors
  to align efforts to help PA companies' access non-RISE PA industrial
  decarbonization finance opportunities (capital stack). While \$396 million is a lot
  of money it's a small fraction of the amount needed to reduce energy use and
  emissions as much as technically feasible in Pennsylvania's industrial sector.
- <u>Create and maintain</u> a public database of industrial facilities (that integrates data from existing EPA, DEP, and other sources).
  - Assess the need for foundations to invest in maintaining data collection in the event that EPA and the federal government stop collecting vital data.<sup>4</sup>
  - <u>Track</u> RISE PA progress accurately, <u>evaluate</u> RISE PA progress (on reducing emissions, co-pollutants, public health etc.) and <u>create a</u>

<sup>4</sup> This assessment should start by evaluating how much existing efforts have already mapped out the need to both capture existing data and, critically, continue data collection. These efforts include <a href="https://www.climate.us/">https://www.climate.us/</a>; the <a href="https://www.climate.us/">Environmental Data & Governance Initiative — Environmental Data and Governance Initiative</a>; and initiatives of the Sabin Center. Catherine Tulley of the RISE PA team provided this information regarding these existing efforts to evaluate potential data collection needs and gaps.

<u>dashboard</u> to help drive coordination across multiple programs and stakeholders in order to increase positive impacts of Rise PA.

- <u>Target</u> technical assistance to sectors and regions with deficient RISE PA impacts and to projects with potential for greatest benefits.
- **Elevate the story** of RISE PA's success using data as well as case studies.
- 2. Maximize Success of and Learnings from Bonus Awards for Community Benefits and Fair Labor Provisions and Apprenticeship Utilization Requirements.

**Coalition Goal:** Identify, assess, increase and elevate community benefits from industrial decarbonization projects, including creation of good jobs and local access to those jobs, particularly disadvantaged communities.

**Desired Outcome:** Help ensure effective implementation of and positive impacts from RISE PA's Community Benefits Bonus (CBB), Fair Labor Bonus (FLB) and other labor requirements; capture these impacts to inform future PA, regional, and national policies.

#### **Action Steps:**

- <u>Maximize</u> Community Benefit and Fair Labor Bonus Impacts through peer learning and by building networks of industry partners, technical assistance providers, community and labor groups.
- <u>Map</u> high-poverty communities.
- **Boost compliance** with RISE PA (carrots and sticks):
  - Identify challenges for CBB and FLB applications and implementation and potential best practices and solutions. Compile lessons learned for future CBB and FLB policies.
  - Promote enforcement of commitments for those awarded CBB and FLB bonuses and other labor-related requirements. Assess need for and best practices regarding legally binding agreements.
  - As one component of technical assistance to increase compliance with apprenticeship utilization requirements, map apprenticeship and training programs most relevant to industrial decarbonization, including contact information; and produce a simple explainer on how companies can hire apprentices affiliated with these programs.
  - Customize a primer for RISE PA applicants and awardees on apprenticeship readiness and other pre-apprenticeship programs. Include case studies and data on the growing diversity of Pennsylvania joint construction apprentices—which can help achieve diverse local hiring and meet the apprenticeship utilization requirement.

- Secure technical assistance for RISE PA and individual grantees from the PA Foundation for Fair Contracting to ensure compliance with prevailing wage and apprenticeship utilization requirements.
- Assess compliance and capture lessons for enforcement by and beyond RISE PA.

### 3. RISE-ing Upward: Expand and Replicate Rise PA as a Model for Modernizing Industry Across the Region and the Country

Coalition Goal: Make Rise PA a permanent Pennsylvania program with a state budget line item and replicate RISE PA in other states within the region and at the federal level (with the help of multi-state networks such as the National Association of State Energy Officials (NASEO).

**Desired Outcome:** The industrial decarbonization community/coalition propels Pennsylvania's industrial sector into national leaders of the low-carbon economy.

#### **Action Steps**

- <u>Research</u> diverse financing options for industrial decarbonization that goes beyond grants.
  - Assess promising options and combinations of options, through a report and virtual convening that includes varied models such as the Pennsylvania Investment Authority (PennVEST), the Pennsylvania Energy Development Authority (PEDA); the Philadelphia Green Capital Corps; NYSERDA's Commercial & Industrial Carbon Challenge, financing by industry through energy service companies; a union-friendly energy service fund within a socially responsible investment firm; financing by rural electric cooperatives (see this CO initiative);
  - Identify roles philanthropic funds could play such as gap filling, seed funding, funding for convenings and peer learning.
- **<u>Develop</u>** PA, state, and federal policy platforms that promote industrial competitiveness through decarbonization.
  - Identify gaps or shortfalls in RISE PA and other industrial decarbonization programs (including federal ones) in Pennsylvania.
  - In partnership with the National Association of State Energy Officers and its industrial decarbonization working group, assess and monitor on an ongoing basis current and proposed industrial decarbonization policies and legislation in other states and at the federal level.
  - Develop and test messaging that can attract bipartisan and business support for industrial decarbonization, including by emphasizing cost savings and the contributions to industrial competitiveness.
  - Informed by the above, by the experience of RISE PA, and by convenings organized with National Association of State Energy Officials (NASEO),

develop PA-specific, state, and federal policy platforms. The state platform could include a \$10 million revolving loan fund for industrial decarbonization. The federal platform should include increased federal funding for Industrial Assessment Centers and Manufacturing Extension Partnerships to conduct industrial energy assessments, provide incentives and access to capital for implementing recommended projects.

- Advocate for the PA and federal policy platform and assist with advocacy in other states within the 4-state Ohio River Valley region of Appalachia.
  - Conduct community listening sessions and public webinars to validate RISE PA benefits as well as surface community concerns.
  - Assess and distill in accessible materials the economic benefits of investment in industrial decarbonization.
  - Create publicly available educational materials and resources drawing from the Industrial Playbook, RISE PA evaluation data, convenings for RISE PA grantees, and best practice examples.
  - Develop a PA communications and advocacy campaign that
    - engages local media and stakeholders and uses educational materials to increase community buy-in and support;
    - convenes advocates, policymakers, rise Pa program officials and companies for legislative briefings; and
    - trains advocacy teams to meet with individual state legislators and Congress to advance the PA policy platform;
  - Create a RISE PA replication team that includes industry, program officials, PA legislators, labor, and other advocates and that is available to other states or for Congressional advocacy.

1. Maximize Value [and Reach] of Rise PA Program							
Action	Action Step Owner(s)	Budget	Impact				
A. Convene, connect, learn and build capacity							
Directly support RISE PA staff with feedback, access to national experts, coalition backing.	Relmagine Appalachia, RISE PA working group and National Association of State Energy Officials	\$350,000 for year 1; 1 dedicated staff person, subcontracts to other partners, plus some convening costs	Extend RISE PA staff capacity, integrate national best practices, distill lessons for replication				
Support state's convening of decarbonizing companies by technology & sector			Accelerate peer learning, diffusion of effective practices, innovation				
Map out Tech assistance providers			Improve RISE PA implementation				
<u>Convene</u> multiple state and federal programs, and utilities.			Transcend silos, maximize collective impact, identify resources to maintain decarb momentum when RISE PA funds are gone.				
Focus one strand of capacity building on unionized companies and contractors via convenings, surveys of decarbonization capacities and training, assessment of willingness to jointly fund industrial decarbonization marketing	KRC and Union Energy	\$150,000 per year for year 1	Create more good union jobs, capitalize on worker voice in decarb projects, boost decarb community of practice in unions/union firms, strengthen union self-interest in well-funded decarb				
Communicate to companies the competitive benefits of industrial decarbonization	Communications firm with support from RA working group communications	\$150,000 for 18 months; 1 full-time person plus support staff	Fully capitalize on Oak Ridge "Better Plants" program, Renewable Thermal Collaborative & other national resources; sustain RISE PA momentum; get "Decarbonization Playbook" off to a fast start				

B. Map out then implement RISE PA in strategic phases from efficiency first to maximum decarbonization					
Map out RISE PA strategy in phases	Clean Air Council, NASEO, and academic partners  drawing on prior	\$150,000 drawing heavily on prior work	Encourage RISE PA focus first on efficiency/low hanging fruit but then shift to analytically and empirically defined pathways that will yield deeper decarb		
Profile renewable energy potential for industrial decarb in PA and the potential of PA partnership w/Project Innerspace to accelerate use of geothermal for industry			Make PA a global leader in geothermal, boosting industry and emissions/ toxics reduction		
<b>Explore</b> behind the meter joint renewable energy generation for large-load industrial electricity users			Spark widespread, innovative use of on-site or nearby renewables; ensure large load users don't drive up costs for residential consumers		
C. Deploy data to maximize the impact of RISE PA					
Create and maintain a public database of industrial facilities (that integrates data from existing EPA, DEP, and other source	Synapse	\$250,000 for phase 1 in 2026	Assess need for foundations to invest in data collection Track and evaluate RISE PA progress vs. other states Create dashboard to drive collective action for max. impact Target future industrial decarb \$ to greatest payoffs (cost savings, toxics and emissions cuts,. public health) Bolster the story of RISE PA success		
2. Maximize Success of and Learnings from Bonus Awards for Community Benefits and Fair Labor Provisions and of Other RISE PA Labor Requirements (apprenticeship utilization and prevailing wage)					

Promote peer learning on CBB and FLB bonus awards and build networks of TA providers, community & labor groups	RA working group	\$100,000 for year 1, including convening costs	Maximize community benefit and fair labor bonus impacts			
Capture RISE PA CBB and FLB implementation, incl. mapping of low-income communities, scoring rubrics, challenges, enforcement experience, best practices, and other lessons learned			Extract lessons learned for future policy in PA and beyond Create a toolkit to facilitate replicability			
Use technical assistance and enforcement to boost compliance with prevailing wage and apprenticeship utilization; assess compliance and lessons learned	PA Foundation for Fair Contracting	\$100,000 for year 1	Improve job quality on RISE PA projects and creation of high-paying construction careers for diverse local workers			
3. RISE-ing Upward: Expand & Replicate Rise PA as a Model for Modernizing Decarbonizing Industry Across the Region & Country						
<u>Track</u> federal, private, and philanthropic funding for industrial decarbonization: provide support to applicants; educate coalition members, applicants, and other stakeholders on funding sources.	RISE PA working group, Steel Valley Authority, The Reinvestment Fund	\$300,000 over two years, including convening costs	Sustain momentum for industrial decarbonization in PA beyond RISE PA Build the case for philanthropic investment in a \$10 million revolving loan fund for PA Help programs/funders of decarbonization			
<u>Promote</u> diverse financing for industrial decarb via a research report then a convening; identify specific roles for philanthropic funds; Explore development of socially responsible decarb fund for contractors adhering to strong labor standards.			avoid being siloes and solve market failures that impede cost effective industrial decarbonization. Identify gaps for philanthropy to fill such as payments for audits, up-front costs, and energy service intermediaries			
Develop PA, state, and, in 2028, federal policy platforms that promote industrial competitiveness through decarbonization: assess existing industrial decarbonization programs (not just RISE PA), sharpen the case for cost and competitiveness benefits, conduct opinion research and message testing, refine platforms through listening sessions.	RISE PA working group and NASEO RISE PA Working Group and NASEO	\$300,000 over 2 years with time for 2028 customization; \$200,000 in 2028 for advocacy	Sustain RISE PA beyond 5 years and with dedicated state funding. Increase replication of RISE PA in other states and nationally			

	Advocate for the PA policy platform and assist with advocacy in other states and federally.		
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