

# Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities

**Interagency Working Group on  
Coal and Power Plant Communities  
and Economic Revitalization**

APRIL 2021

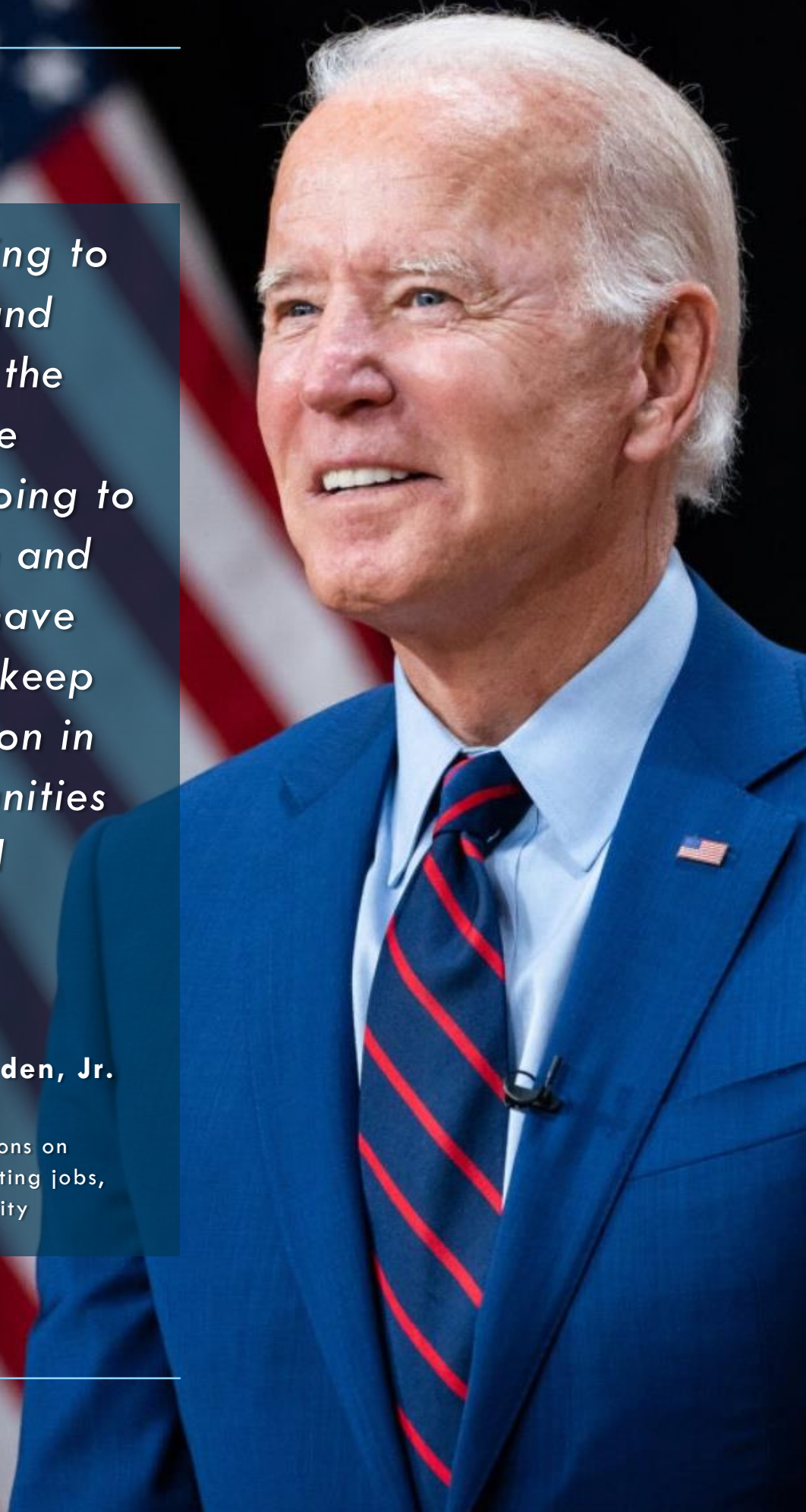
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*“We’re never going to forget the men and women who dug the coal and built the nation. We’re going to do right by them and make sure they have opportunities to keep building the nation in their own communities and getting paid well for it.”*

**President Joseph R. Biden, Jr.**  
**January 27, 2021**

before signing executive actions on tackling climate change, creating jobs, and restoring scientific integrity

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# INTERAGENCY WORKING GROUP ON COAL AND POWER PLANT COMMUNITIES AND ECONOMIC REVITALIZATION

was established by Executive Order 14008, sec. 218 (January 27, 2021).  
Agencies represented on the Interagency Working Group are:



**U.S. Department  
of Treasury**



**U.S. Department  
of the Interior**



**U.S. Department  
of Agriculture**



**U.S. Department  
of Commerce**



**U.S. Department  
of Labor**



**U.S. Department of  
Health and Human  
Services**



**U.S. Department  
of Transportation**



**U.S. Department  
of Energy**



**U.S. Department  
of Education**



**U.S. Environmental  
Protection Agency**



**Office of Management  
and Budget/  
Domestic Policy  
Council**



**Appalachian  
Regional  
Commission**

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**National Energy Technology Laboratory.**

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# I. EXECUTIVE SUMMARY

President Biden is committed to providing federal leadership in partnership with coal, oil and gas, and power plant communities to create good-paying union jobs, spur economic revitalization, remediate environmental degradation, and support energy workers.

On January 27, 2021, President Biden signed Executive Order 14008, *“Tackling the Climate Crisis at Home and Abroad,”* establishing an Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization. The Interagency Working Group is co-chaired by the Director of the National Economic Council (NEC) and the National Climate Advisor, and administered by the Secretary of Energy.

As a first step, the Executive Order directs the Interagency Working Group to prepare an initial Report describing, “mechanisms, consistent with applicable law, to prioritize grantmaking, federal loan programs, technical assistance, financing, procurement, or other existing programs to support and revitalize the economies of coal and power plant communities.”

This initial Report represents the Interagency Working Group’s first steps toward advancing the mandate set out in Executive Order 14008. The Interagency Working Group drew upon the direction of the President’s Executive Order, reviewed domestic and international models for economic revitalization, compiled recommendations from advocacy groups and academics, and sought guidance from representatives of Energy Communities. Stakeholders included labor unions; community development organizations; local, regional, and tribal governments; the private sector; and philanthropic interests.

Specifically, the Report identifies:

**A set of communities across the country hard-hit by coal mine and coal power plant closures, which should be prioritized for focused federal investment.**

- The Interagency Working Group will promote job-creating investments in communities already impacted by coal mine and power plant closures and will also be pro-active, investing now in the communities likely be impacted by additional, near-term declines in coal production and generation from coal-fired power plants.
- The Report identifies the 25 most impacted regions for coal-related declines for the Interagency Working Group to focus on most immediately as priority Energy Communities. In addition, we identified a broader set of energy-impacted communities for the Working Group to focus on stemming the longer-term declines anticipated from the clean energy transition.
- These communities include workers directly employed in coal mining and power generation, and also the workers in related jobs in logistics and services, residents who are dependent on coal-related tax revenue to fund schools, fire houses, police stations, and infrastructure—as well as fenceline communities and other communities impacted by environmental and health effects of fossil energy generation.

**Existing federal programs with potentially available funding totaling nearly \$38 billion which could be used to provide immediate investments in Energy Communities.**

- Grant funding for infrastructure projects, including, roads, broadband, water and sewer system improvements, and local transportation—creating immediate good-paying union jobs and laying the foundation for economic development.
- Resources to deploy innovative low-carbon technologies on power plants and industrial facilities—capitalizing on technological advances to prepare traditional energy infrastructure for the clean energy economy.
- Financing and grant funding programs to remediate abandoned mine lands, orphaned oil and gas wells, mine-impacted water, and brownfields—restoring natural assets and curbing toxic emissions that pose serious safety hazards and cause air and water contamination.
- Funding for small businesses, community development financial institutions, local non-profit organizations, and economic innovation hubs—supporting the local economic infrastructure necessary for economic revitalization.
- Grant funding for regional economic development aligned workforce development—enabling Energy Communities to prepare workers for new markets and industries.

**Immediate steps the Interagency Working Group should take within the next year to support Energy Communities.**

- Immediately align the work of the Interagency Working Group with other federal efforts to direct investment to disadvantaged and environmental justice communities.
- Within three months, launch a series of town hall meetings with senior Administration officials in Energy Communities, to both listen to the concerns of key constituencies and identify federal resources communities could immediately access.
- Within three months, recommend whether a formal Energy Community advisory group comprised of key constituencies—including labor unions; state, local, and tribal officials; environmental justice organizations; community groups; and others—should be created to support activities of the Interagency Working Group.
- Support good-paying, union job-creating investments in priority Energy Communities.
- Engage key federal resources, including the National Labs and the National Academies, to provide regular reports to the chairs of the Interagency Working Group and the President on the progress of federal efforts to revitalize Energy Communities.
- Within one year, establish and expand efforts to create a “one-stop shop” for Energy Communities seeking access to federal resources, and identify mechanisms to coordinate the activities of federal agencies and the delivery of federal resources to reinforce the economic revitalization goals of the Interagency Working Group.
- Within one year, prepare a follow-up report recommending changes to federal policy and programs to enhance federal capabilities to deliver economic revitalization to Energy Communities.

The Interagency Working Group will build on these findings and work with stakeholders inside and outside of the federal government to foster economic revitalization in Energy Communities.

## II. INTRODUCTION

On January 27, 2021, President Biden signed Executive Order 14008, *“Tackling the Climate Crisis at Home and Abroad,”* which established the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (“Interagency Working Group”). The Working Group’s mandate is to “coordinate the identification and delivery of federal resources to revitalize the economies of coal, oil and gas, and power plant communities.”

The Interagency Working Group is co-chaired by the Director of the National Economic Council (NEC) and the National Climate Advisor, and administered by the Secretary of Energy. The members of the Interagency Working Group include the Secretary of Treasury, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the Secretary of Health and Human Services, the Secretary of Transportation, the Secretary of Energy, the Secretary of Education, the Administrator of the Environmental Protection Agency (EPA), the Director of the Office of Management and Budget, the Director of the Domestic Policy Council, and the federal Co-Chair of the Appalachian Regional Commission (ARC). The Council on Environmental Quality also participates in the Interagency Working Group.

Executive Order 14008 tasked the Interagency Working Group with preparing an initial Report describing “mechanisms, consistent with applicable law, to prioritize grantmaking, federal loan programs, technical assistance, financing, procurement, or other existing programs to support and revitalize the economies of coal and power plant communities.”

The following Report is responsive to this direction and describes:

- Twenty-five urgent geographic areas, hard-hit by past coal mine and plant closures and vulnerable to more closures, that are priorities for investment and engagement.
- Existing federal agency authorities with up to \$37.9 billion in available funding that could deliver immediate investment to Energy Communities and workers.
- Immediate actions the Interagency Working Group will take to deliver investment to communities, engage impacted communities, and coordinate government resources, along with longer-term planning goals.

The findings of this Report represent the Interagency Working Group’s first steps toward advancing the mandate set forth in Executive Order 14008. The Interagency Working Group looks forward to building on these findings and working with stakeholders inside and outside of the federal government to foster economic revitalization in hard-hit coal, oil and gas, and power plant communities (“Energy Communities”).

*“Federal leadership is essential to foster economic revitalization of, and investment in, [mining and power plant] communities, ensure the creation of good jobs that provide a choice to join a union, and secure the benefits that have been earned by workers.”*

**Executive Order 14008**  
January 27, 2021

## GUIDING PRINCIPLES

Drawing on the President’s direction in Executive Order 14008, a review of domestic and international models for economic revitalization, and a series of initial listening sessions with key stakeholders, the Interagency Working Group developed the following set of guiding principles for its work.

### **Create Good-Paying Jobs**

The closure of a mine or a power plant often leaves already challenged Energy Communities with even fewer good-paying jobs. Community and labor organizations make clear that many Energy Communities need immediate support. Said one stakeholder, *“There is an opportunity to make large strides in the near term.”* Immediate investments in critical infrastructure like broadband, water infrastructure, and roads can create good-paying union jobs today. Also, with appropriate investment, Energy Communities can become hubs for the advanced energy economy—retrofitting traditional energy generation and industrial facilities with carbon capture technologies or helping construct and maintain renewable generation facilities.

### **Provide Federal Investment to Catalyze Economic Revitalization**

Creating good-paying union jobs in Energy Communities is necessary, but not sufficient. Energy Communities that often suffered from years of disinvestment, even during the boom times of the traditional energy economy, require foundational infrastructure investments to access the benefits of the innovation economy. Investments in public infrastructure (e.g., broadband, water systems, roads, and the electric grid) and civic infrastructure (e.g., hospitals, schools, small businesses, rural serving financial institutions, and community-based non-profits) can spark new economic activity, provide community services and amenities, and build community wealth. Finally, achieving economic revitalization and spurring opportunity will require a long-term federal commitment to planning and public investment in close partnership with state, regional, and local leaders.

### **Support Energy Workers by Securing Benefits and Providing Opportunity**

As stated in Executive Order 14008: “Mining and power plant workers drove the industrial revolution and the economic growth that followed, and have been essential to the growth of the United States.” These Americans experienced numerous industrial transitions in the last 50 years, resulting from trade policies and myriad technological changes. Time and again, Energy Communities were promised everyone would benefit from a changing economy. In practice, the gains were not fully shared with Energy Communities. Today, many workers in these communities are still struggling as they deal with the challenges of a global pandemic, economic collapse, and the impacts of climate change. A national clean energy transformation will only be successful if it provides good-paying union jobs in growing markets and industries and secures the benefits that energy workers earned. Changes to bankruptcy rules, for example, could help ensure coal companies make good on their commitments to workers and to environmental remediation. As one labor leader stated, *“We need to think about the individual workers who lose their jobs. We need to provide robust support over time to keep folks whole and empower people to make choices about their futures.”*



## Prioritize Pollution Mitigation and Remediation

Even as mines and plants closed, energy workers, their families, and nearby fenceline and other communities continue to face the health and environmental effects of mining and power generation. Environmental degradation resulting from abandoned traditional energy infrastructure is also an environmental justice issue and an impediment to economic revitalization. In this sense, environmental justice communities and Energy Communities share common economic and health interests. Federal investments in environmental remediation efforts, such as plugging leaking oil and gas wells and reclaiming abandoned mine land, can create good-paying union jobs while restoring natural assets and curbing toxic emissions that pose serious safety hazards and cause air and water contamination. Returning idled properties, such as brownfields, to productive use can be another source of place-based jobs enabling new economic activity.

## Adopt a Government-Wide Approach

Executive Order 14008 directs the Interagency Working Group to adopt an integrated approach to supporting Energy Communities. This direction was echoed by stakeholders who urged the Interagency Working Group to better coordinate the various federal programs that can support Energy Communities. These programs are often siloed, requiring different entry points and different applications, forcing communities to expend valuable time and resources obtaining wholistic federal support. The Partnership for Opportunity and Workforce and Economic Revitalization (POWER) Initiative, launched under the Obama Administration, was often elevated as a model of success. *“It was remarkable and a great interagency collaboration,”* observed one participant from the government-focused stakeholder input session. *“We need to reignite that collaboration...the success of a project can rise or fall based on the collaboration of an agency program manager.”* The efforts of the Interagency Working Group also need to be coordinated with other government-wide efforts, including the Justice40 Initiative; the implementation of the Supply Chain, Buy America, and Racial Equity Executive Orders; and the emerging rural development StrikeForce effort.

## Formalize Stakeholder Engagement Efforts

Executive Order 14008 requires the Interagency Working Group to consult with key stakeholders. During the initial listening sessions detailed in [Appendix A. March Stakeholder Engagement](#), stakeholders emphasized there is no uniform set of solutions for economic revitalization. *“It’s very different for coal, than it is for timber, than it is for oil and gas,”* one stakeholder noted. *“In general, regionalized economic development builds upon existing industry, which, again, looks different in different places...so there can’t be a one-size-fits-all approach.”* Policy interventions must account for the assets of each Energy Community and be driven by community input, including the most economically disadvantaged, such as women, people of color, and those living in rural communities. Further, local community residents, not state intermediaries alone, must drive the direction of local economic development. This point was summed up well by a tribal stakeholder’s comment calling for engagement at the grassroots level—*“Talk to the local people. Don’t stop at the government level. Bring it to the people.”* Finally, successful economic revitalization efforts will require public support, and collaboration with residents, business leaders, and philanthropic interests.

### III. PRIORITIZING ENERGY COMMUNITIES

The Interagency Working Group identified 25 priority geographies hard-hit by declines in coal production and consumption. These geographies are also vulnerable to further economic distress as the remaining coal mines and coal power plants close. The Working Group recommends prioritizing these geographies in the near-term for investment using existing federal agency programs and funding from the FY2021 budget and American Rescue Plan. In parallel with this near-term focus on coal mining and power plant communities, the Working Group will maintain its mission of coordinating, identifying, and delivering federal resources to all Energy Communities.

#### ENERGY COMMUNITIES NATIONWIDE

Regions dependent on fossil fuels for their livelihood—from resource extraction activities such as mining, to drilling, processing, refining, and power generation—are diverse. There are large cities tied to the traditional energy industry, such as Houston and Dallas, which are significant producers of crude oil and natural gas. There are also smaller communities like Sheridan, Wyoming—a city of 17,844 and one of the country’s top producers of traditional energy resources. In Sheridan, mining and oil- and gas-related jobs are a top 10 employer, with coal from this county accounting for 42% of the city’s overall economic activity, equaling more than \$4 billion in value in 2020.<sup>1</sup> In contrast, many Appalachian communities are suffering due to coal’s decline. Coal mining in Boone County, West Virginia, employed half of the county in 2008. However, both coal mining and employment dropped by 80% during the eight years that followed.<sup>2</sup>

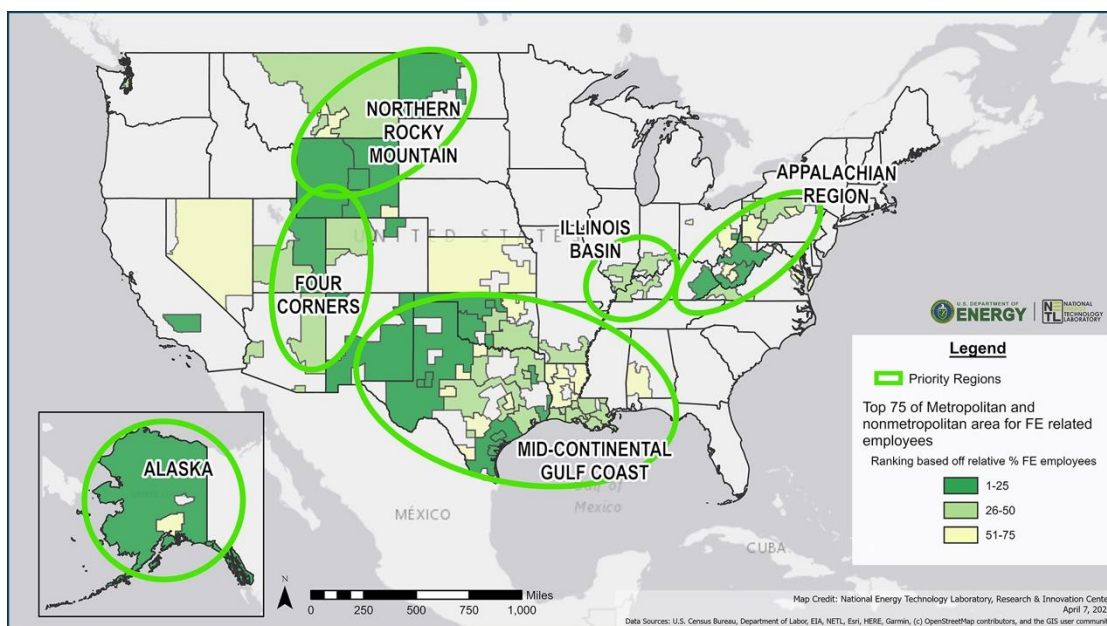


Figure 1. Map highlighting fossil energy-centric corridors with a high number of fossil energy (FE) activities and jobs. Shading highlights Bureau of Labor Statistics (BLS) metro and non-metro areas that are communities vulnerable to impacts from FE job losses.

The map in Figure 1 shows areas of the country with the highest concentration of traditional energy-related jobs per the Bureau of Labor Statistics (BLS). West Texas (Permian Basin), which is oil and gas production-centric, and the Williston Basin, North Dakota, which combines coal mining and oil and gas production sectors, are the top ranked employment areas classified as traditional energy. Other areas of traditional energy significance include nearly the entire states of West Virginia and Wyoming, and significant parts of New Mexico, Alaska, West Texas, the Gulf coast of Texas, western Oklahoma, eastern Utah, and parts of Kentucky.<sup>3</sup>

The **Four Corners** region encompasses northeast Arizona, northwest New Mexico, eastern Utah, and western Colorado. It is home to one of the top 20 producing coal mines in the United States; two of the top 20 by power generation capacity coal power plants; three refineries; more than 64,000 active oil and gas wells, representing 8% of active oil and gas wells in the country; and one of the top 20 producing natural gas power plants. This region also hosts more than 10,750 miles of hydrocarbon pipeline infrastructure.

The **Northern Rocky Mountain** region includes most of the state of Wyoming, eastern Montana, and western North Dakota—some of which could be described as northern Great Plains. It is home to seven of the top 20 producing coal mines in the country; seven refineries; and more than 51,000 active oil and gas wells, representing 7% of active oil and gas wells in the United States. This region is the top producer of coal in the nation, producing more than 469 million short tons of coal in 2014.<sup>4</sup> This region also hosts more than 6,300 miles of hydrocarbon pipeline infrastructure.

The **Mid-Continental Gulf Coast** encompasses Texas, Oklahoma, Arkansas, Louisiana, Mississippi, southwestern Alabama, and southeastern New Mexico. This region houses two of the top 20 producing coal mines in the country; three of the top 20 coal power plants by power generation capacity; 62 refineries; more than 468,000 active oil and gas wells, representing 61% of active oil and gas wells in the United States; and five of the top 20 producing natural gas power plants. This region also hosts more than 114,000 miles of hydrocarbon pipeline infrastructure.

The **Illinois Basin** region encompasses southern Indiana, southern Illinois, western Kentucky, and portions of adjacent states. It is home to three of the top 20 producing by power generation capacity coal mines in the country; four of the top 20 coal power plants; three refineries; and more than 11,000 active oil and gas wells, representing 2% of active oil and gas wells in the United States. This region also hosts more than 5,800 miles of hydrocarbon pipeline infrastructure.

The **Appalachian Region** encompasses eastern Kentucky, West Virginia, southwestern Virginia, southeastern Ohio, much of Pennsylvania, and a southern part of New York. It is home to seven of the top 20 producing coal mines in the country; four of the top 20 by power generation capacity coal power plants; five refineries; more than 169,000 active oil and gas wells, representing 22% of active oil and gas wells in the United States; and two of the top 20 producing natural gas power plants. This region also hosts more than 18,000 miles of hydrocarbon pipeline infrastructure.

The **Alaska** region encompasses most of the state. Traditional energy activities are largely affiliated with the North Slope (Prudhoe Bay and adjacent areas), Cook Inlet, and specific coal mining and power infrastructure in and around Denali Borough. Alaska is home to one major coal mine; five operating coal power plants; 15 natural gas power plants; and five hydrocarbon refineries. The region has more than 3,000 active oil and gas wells; while only representing 0.4% of the country's active wells, this region is the fifth-largest oil provider in the United States.<sup>5</sup> The Alaska region also hosts more than 156,000 miles of hydrocarbon pipeline infrastructure, dominantly associated with the Trans-Alaska pipeline.

## PRIORITY ENERGY COMMUNITIES

Although overall traditional energy production is dispersed throughout the United States in the regions described above, “coal country” exists in fewer concentrated communities. Declines in coal production and consumption have occurred, and will continue to occur, most rapidly.

United States **coal mining** employment declined from more than 175,000 in 1985 to roughly 40,000 in 2020,<sup>6</sup> with close to 15%<sup>7</sup> of remaining workers now at or approaching retirement age. Reduced coal demand and increased automation drove this job reduction. Production east of the Mississippi River (led by Appalachia) peaked around 1990 and then began a slow decline, with that decline accelerating in recent years. West of the Mississippi production, led by Wyoming, grew rapidly from the early 1970s, reaching a peak in 2008, and fell by roughly 33% since that time.<sup>8</sup> Coal mining communities across the United States are struggling—and many, particularly in Appalachia, have been struggling for decades.

**Coal power generation** provided approximately half the nation's electricity from 1950–2008 and has steadily declined since, producing approximately 23% of U.S. electricity in 2019.<sup>9</sup> These facilities are aging, with most coal plants 35–55 years old, and many even older. Since 2009, 142 plants have retired generators or closed entirely, mainly concentrated in Appalachia, the Southeast, the Illinois Basin, and a few isolated plants in the Midwest and the Four Corners region. Of the 237 coal-fired plants that continue operating in the United States, 69 geographically dispersed plants announced retirement dates with many expected to retire by 2025.<sup>10</sup>

Given the expected near-term declines in coal production and generation from coal power plants, the Working Group recommends focusing initial federal investments in areas with high concentrations of coal-dependent jobs, as illustrated in the map in Figure 2.

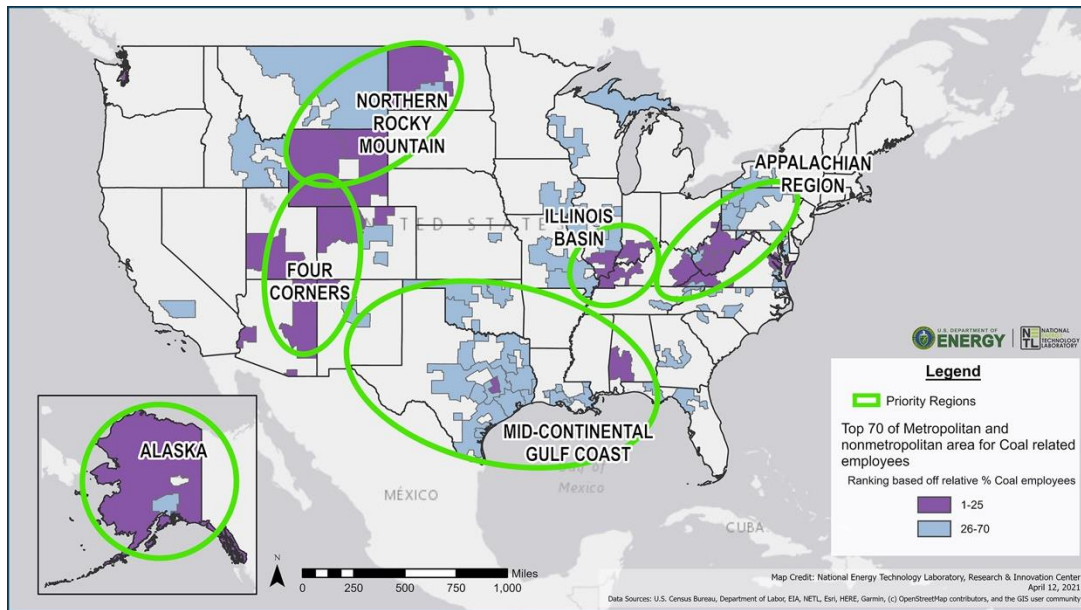


Figure 2. Shading highlights BLS metro and non-metro areas that are communities vulnerable to impacts from coal-specific job losses.

Most of these fossil energy corridors were also negatively impacted by coal mine and power plant closures during the past 15 years, as illustrated in Figure 3. The Working Group will promote job-creating investments in these communities already impacted by losses in coal mine and power plant employment.

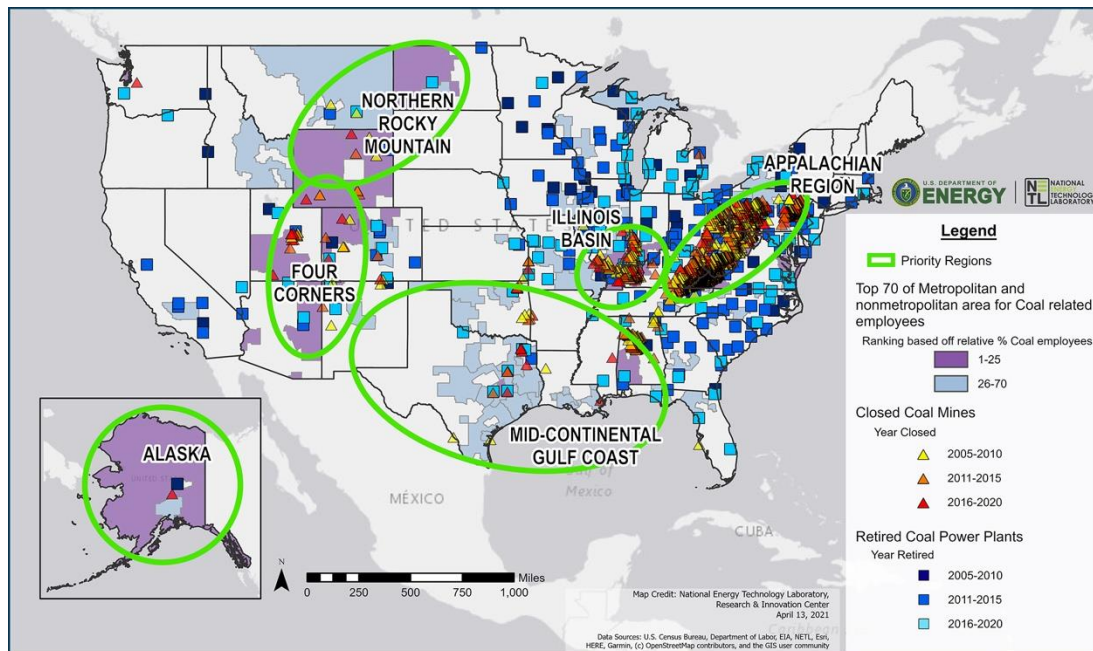


Figure 3. Map indicates coal mine and power plant closures from 2005–2020.

The Working Group is also looking to the future to plan proactively and support communities likely to be impacted by near term declines in coal production and generation from coal-fired power plants. The Working Group identified the 25 communities most dependent on coal and

coal powerplant jobs today to prioritize for investment and engagement. As Figure 3 demonstrates, communities impacted by past closures and vulnerable to future closures are often overlapping. Recognizing these potential future losses pushes the Working Group to consider a larger swath of communities and adjust ambition accordingly.

The top 25 coal-dependent areas, based on the number of direct coal-related jobs as a percentage of the total number of jobs in each area, are listed in Figure 4.<sup>11</sup> This ranking helps identify areas that are most vulnerable to additional near-term coal mine and power plant closures. The identified communities are found mostly in rural, non-metropolitan areas and often offer fewer alternative employment opportunities. Quantifying the number of direct coal-related jobs understates the impact of the industry on local economies, as mining and power generation often create indirect jobs in logistics, services, and more. Further, revenue generated by the industry provides significant support to local governments. A list of specific counties included in each BLS area can be found in [Appendix B. Counties Within Priority Communities](#).

RANK	BLS AREA NAME
1	Southern West Virginia non-metropolitan area
2	East Kentucky non-metropolitan area
3	Wheeling, West Virginia-Ohio
4	Southwest Virginia non-metropolitan area
5	Alaska non-metropolitan area
6	West Kentucky non-metropolitan area
7	Bremerton-Silverdale, Washington
8	Eastern Wyoming non-metropolitan area
9	Western Wyoming non-metropolitan area
10	Arizona non-metropolitan area
11	Northern West Virginia non-metropolitan area
12	South Illinois non-metropolitan area
13	Central Utah non-metropolitan area
14	Southern Indiana non-metropolitan area
15	California-Lexington Park, Maryland
16	Farmington, New Mexico
17	Northeast Virginia non-metropolitan area
18	West North Dakota non-metropolitan area
19	Greeley, Colorado
20	College Station-Bryan, Texas
21	Southwest Alabama non-metropolitan area
22	Grand Junction, Colorado
23	Beckley, West Virginia
24	Charleston, West Virginia
25*	Western Pennsylvania non-metropolitan area

\* Added for geographic diversity.

Figure 4. The top 25 BLS areas associated with key coal occupations. Ranking is shown in order of % of total direct coal jobs relative to all employees for each BLS area.

## FENCELINE COMMUNITIES

The Working Group also recognizes that many Energy Communities are themselves, or are adjacent to, “fenceline communities”—communities situated near energy or industrial facilities. Fenceline communities are often communities of color and disproportionately

exposed to the pollution and environmental impacts generated by these facilities and are among the most polluted communities in the country.

Many fenceline Energy Communities shouldered the burden of environmental impacts for generations, but increasingly without the added value of industrial employment. These communities share many common negative economic experiences with coal communities. Investments in enhanced air monitoring, remediation, and technical assistance for fenceline Energy Communities is a critical element of the clean energy transformation.

## TRIBAL COMMUNITIES

Energy Communities are also present on tribal lands. Federal intervention and incentives often supported traditional energy development on tribal lands, and as a result, many tribal economies now rely on traditional energy industries for employment and tax revenue. However, many tribal energy communities are well positioned to leverage their natural assets to expand clean energy. Tribal land comprises approximately 2% of the U.S. land base but contains an estimated 5% of all renewable energy resources. Further, tribal energy communities have deep experience in energy infrastructure deployment from decades hosting traditional energy infrastructure.

Federal investment and support can both accelerate clean energy deployment on tribal lands and ensure that it is done in an equitable way, respecting tribal sovereignty and ensuring long-term community benefits.

## FURTHER ANALYSIS

The Interagency Working Group will conduct further analysis to identify Energy Communities and evaluate federal progress toward spurring economic revitalization. Potentially relevant data sources for further analysis include:

- **Derivative employment data**, including employment data from sectors providing support services to traditional energy sectors and revenue data from Energy Communities' state and local governments.
- **Metrics of community economic need**, including demographic data, poverty data, area median income data, health outcomes, incarceration rates, and educational attainment.
- **Cumulative impact data**, including community-level data of relative air and water pollution levels, resilience, and climate risk exposure.
- **Economic development and diversification pathways**, including an inventory of local assets available for economic development, an infrastructure needs analysis, and an assessment of the training needs of displaced workers.

## IV. IMMEDIATE ACTION

The Interagency Working Group identified up to \$37.9 billion in existing federal funding that could be accessed by Energy Communities for infrastructure, environmental remediation, union job creation, and community revitalization efforts. Working Group members identified the following list of existing authorities as particularly impactful for Energy Communities.

### DEPARTMENT OF COMMERCE

#### **Investing in Job-Creating Infrastructure Projects**

The Department of Commerce's Economic Development Administration (EDA) has an existing program focused on coal communities, Assistance to Coal Communities (ACC), which can facilitate immediate targeted investments. The ACC program provides grants to communities for a broad range of infrastructure projects, including roads, broadband, technology-based facilities, multitenant manufacturing and other facilities, business and industrial parks, water and sewer system improvements, expansion of port and harbor facilities, and brownfields redevelopment. A 2017 report found that one job was created for every \$6,300 of EDA construction investment.<sup>12</sup> The ACC program can also be a resource for technical assistance and financing other non-infrastructure projects with an economic development focus.

In FY2021, EDA received \$33.5 million under the ACC initiative, which has ongoing availability, with applications reviewed on a rolling basis. The Department of Commerce is also revising EDA investment priorities to promote projects that meet the needs of coal and power plant communities. The updated guidance will apply to all EDA funding, including \$3 billion received through the American Rescue Plan to support a wide variety of communities across America that suffered economic impact due to COVID-19.

#### **Providing Access to Rural Broadband**

The Consolidated Appropriations Act of 2021 established three broadband grant programs at the Department of Commerce's National Telecommunications and Information Administration (NTIA), totaling \$1.585 billion. These programs collectively focus on tribal communities, minority communities, and those regions that have households without access to broadband at speeds of at least 25 megabytes per second (Mbps) for download and 3 Mbps for upload.

Specifically, the Tribal Broadband Connectivity Grants (\$1 billion) provide funding to expand access to and adoption of broadband service on tribal land. Allowable uses for this funding include broadband infrastructure projects, affordability programs, and initiatives that promote digital literacy, telehealth, and distance learning. Eligible entities include tribal governments, Tribal Colleges and Universities (TCUs), Department of Hawaiian Homelands, tribal organizations, and native corporations.

The Connecting Minority Communities Pilot Program (\$285 million) provides grants to Historically Black Colleges and Universities (HBCUs), TCUs, and other minority-serving institutions for devices, broadband service, and digital literacy initiatives. Broadband Infrastructure Deployment Grants (\$300 million) provide competitive grant funding for technologically neutral projects that deploy fixed broadband service in a census block with at least one household or business that does not have access to 25 Mbps download/3 Mbps upload, prioritizing service delivering 100/20 Mbps or better. Tribal communities and those home to HBCUs, TCUs, and other minority-serving institutions will be eligible for funding from these grant programs. In addition, Energy Communities with broadband needs and shovel-



ready infrastructure projects will be eligible to apply for deployment grants. NTIA could facilitate increased participation through targeted outreach to Energy Communities.

## DEPARTMENT OF ENERGY

### **Investing in Technological Innovations**

Congress allocated \$8.5 billion to the Department of Energy (DOE) Loan Programs Office (LPO) in 2005 for new and innovative technologies, including those that would capture greenhouse gases from traditional energy sources. This funding provides opportunities to decarbonize power plants and industrial facilities, such as those manufacturing cement, steel and other industrial products, with technologies such as carbon capture and hydrogen. Retrofitting these facilities with innovative technology could employ a similar workforce to the one that exists today in fossil-based industries and communities. These investments could create thousands of new jobs while positioning American industry to compete in a global economy that is rapidly turning toward decarbonization.

Separately, DOE will immediately begin accepting applications for \$75 million in available funding to develop customized engineering designs to install carbon capture and storage (CCS) technology for power plants and industrial facilities. These funds present another opportunity to capitalize on technological advances to prepare traditional energy plants, potentially including those in Energy Communities, for a clean energy economy.

In addition, DOE is funding geothermal research projects at West Virginia University (WVU) and Sandia National Laboratory. These two projects will receive up to \$15 million to help drive down costs and risks associated with the discovery of new geothermal resources for heating, cooling, and power production. WVU will use the funding to explore year-round, deep-direct use heating and cooling as a replacement for the existing coal-fired cogeneration plant that currently supplies steam for the campus and that is slated to close in 2027. WVU will drill an exploratory well with a full logging and coring program critical to developing geothermal resources under campus. The university will also evaluate shallow reservoirs for energy storage, which will be critical to pivoting away from fossil fuels and transitioning to a low-carbon power grid by 2035. Sandia National Laboratories will use innovative approaches conducting electromagnetic surveys to refine geothermal exploration methods and aid drillers as they explore for geothermal energy in the Western United States, a potential opportunity to create jobs for laid-off oil and gas workers.

Finally, DOE will soon release \$19.5 million in awards for sustainable critical mineral extraction from coal and associated waste streams. Critical minerals are vital to the manufacture of batteries, magnets, and other important components for making electric vehicles (EV) and other clean energy technology. Energy Communities and workers could be well-positioned to see new industrial jobs extracting critical materials from the waste left behind by coal mining and coal power plants in many communities.

## DEPARTMENT OF TREASURY

### **Funding for Small Businesses**

The American Rescue Plan allocated \$10 billion toward the State Small Business Credit Initiative (SSBCI), a program that supports state, territorial, and tribal financing programs, including in economically disadvantaged and minority communities. From 2010–2017, the SSBCI disbursed \$1.43 billion, which was leveraged to support \$10.7 billion in lending and venture capital financing and which helped create or save more than 240,000 jobs. The Department of Treasury is exploring ways to encourage the use of SSBCI funding in Energy Communities, including by highlighting the objectives of Executive Order 14008 in related program guidance and outreach.

### **Investing in Financial Institutions Serving Energy Communities**

The Emergency Capital Investment Program (ECIP) was enacted in the Consolidated Appropriations Act of 2021 and funded at \$9 billion. ECIP provides capital directly to certified Community Development Financial Institutions (CDFIs) or Minority Depository Institutions (MDIs) to support low-income and underserved communities that may be disproportionately impacted by COVID-19. Financial institutions serving Energy Communities that have been impacted by economic fallout from the pandemic, including because of a collapse in energy prices, are eligible to access ECIP funds. Non-bank CDFIs can also access a separate Treasury grant program with an additional \$3 billion in funding. Treasury could facilitate increased participation in the program through targeted outreach to CDFIs and MDIs operating in Energy Communities and by encouraging such entities to apply for certification and capital.

## DEPARTMENT OF THE INTERIOR

### **Creating Good Jobs by Reclaiming Abandoned Mine Lands**

The Office of Surface Mining Reclamation and Enforcement (OSMRE) supports the reclamation of abandoned coal mines. The bureau administers annual mandatory reclamation grants to eligible states and tribes. Under the Biden-Harris Administration, OSMRE announced the availability of \$152.2 million in FY2021 mandatory funding for these Abandoned Mine Lands (AML) grants. OSMRE also administers a discretionary AML Economic Revitalization grant program, which will award \$115 million in FY2021 funding to eligible states and tribes for coal mine reclamation projects that support economic revitalization efforts. These projects directly address the economic development needs of Energy Communities. OSMRE also has an additional \$24.8 million available in FY2021 to provide administrative and technical support for coal reclamation projects in certain states and tribal areas.

The Bureau of Land Management (BLM) remediates orphan wells on public lands with \$4.2 million allocated for this purpose in FY2021. This funding is estimated to address 39 of the 102 orphan wells in BLM's most recent orphan well inventory, with another \$8.7 million available to remediate wells in Alaska's National Petroleum Reserve. Dislocated oil and gas workers living in Energy Communities would be ideal candidates for employment on these projects.

## DEPARTMENT OF AGRICULTURE

### **Financing to Treat Mine-Impacted Water**

The Rural Utilities Service Water and Environmental Programs (WEP) provide financing for rural communities to establish, expand, or modernize water treatment and waste disposal facilities. Energy Communities can utilize WEP to address issues related to mine runoff or mine-impacted water. Recently, a rural Michigan town received WEP funding to treat a water source that was contaminated with high levels of magnesium and iron due to mining. Funds were used to construct a new Concrete Gravity Water Treatment Plant for iron and manganese removal with new high lift pumps, a water filtration system, chemical pumping rooms, a water pumping facility, a new clear-well, and transmission main improvements from wells to the treatment facility. For FY2021, WEP has \$967 million available for loans, \$308 million in grant funds, and \$36 million in technical assistance and training funds.

### **Funding for Rural Innovation Hubs**

The Rural Innovation Stronger Economy (RISE) program offers grant funding to help distressed rural communities establish employment accelerators and innovation hubs to create high-wage jobs and strengthen regional economies. Energy Communities can utilize the RISE program to support workforce development; identify and maximize local assets; spur job creation; and connect to regional opportunities, networks, and industry clusters. The RISE program FY2021 application window is anticipated to open in June 2021.

## DEPARTMENT OF LABOR

### **Financing for Economic Development Aligned Workforce Training**

The Workforce Opportunity for Rural Communities (WORC) demonstration grant initiative supports rural communities in aligning workforce development efforts with economic development plans. WORC serves the Appalachian and Delta regions, which include many Energy Communities. Grant activities can include classroom training; work-based learning, including apprenticeships; skills and needs assessments; job matching assistance; online and technology-related learning strategies, including expanding broadband access; supportive services; employer services; and supporting individuals impacted by substance use disorder. Since the inception of this grant initiative in 2018, the Department of Labor's Employment and Training Administration (ETA) has administered the program in partnership with the Appalachian Regional Commission (ARC) and the Delta Regional Authority (DRA). ETA plans to publish a funding notice for the third round of WORC grants in spring 2021, with an additional emphasis on Energy Communities. ARC and DRA plan to share the opportunity widely within their regions and to offer technical assistance to potential applicants.

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### **Funding for Non-Profit Job Creators**

Supporting jobs and health care access for Energy Communities is key. The Department of Health and Human Services helps support free-standing rural health clinics where there is neither a hospital nor a health center to bolster the delivery of health care services in underserved communities that have borne the brunt of hospital closures. Additionally, the Community Economic Development (CED) discretionary grants program can support direct

investment in Energy Communities, through grants awarded to non-profit community development corporations in disinvested communities for purposes of creating new jobs for low-income individuals, including Temporary Assistance for Needy Families recipients. Bonus points will be given to grant applications that demonstrate evidence that the project will support Energy Communities. This program has approximately \$13.6 million in funding with an estimated 17–19 grants awarded annually, creating approximately 544 full-time jobs. The solicitation for these grants is released in mid-April with awards in September.

## DEPARTMENT OF TRANSPORTATION

### **Funding for Transportation Infrastructure**

The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program, formerly known as BUILD and TIGER, is a \$1 billion competitive grant program that provides flexible capital funding that can support multi-modal and multi-jurisdictional projects. Applicants can include municipalities, counties, tribal governments, and states. Run by the Department of Transportation's (DOT) Office of the Secretary, RAISE represents an opportunity to implement Secretarial priorities directly. DOT recently released the FY2021 funding notice for this program and indicated its commitment to prioritizing projects that improve racial equity, reduce climate change impacts, and create good-paying jobs. This approach will enable DOT to better serve the needs of applicants like Energy Communities that are focusing on job creation and climate change response.

## ENVIRONMENTAL PROTECTION AGENCY

### **Funding to Revitalize Brownfields**

The EPA Brownfields Program includes a competitive grant program to provide funding to empower states, communities, tribes, and non-profit organizations to inventory, assess, and clean up brownfields. Brownfield grants facilitate environmental cleanup and economic redevelopment in communities across the country. Success stories already include projects in communities adversely affected by closed or abandoned power stations and mining sites. EPA anticipates releasing the guidelines for its Brownfields Assessment, Cleanup, and Revolving Loan Fund Grant programs in fall 2021. The competition for FY2022 grants will open in fall 2021.

## APPALACHIAN REGIONAL COMMISSION

### **Investing in Economic Revitalization in Appalachia**

The Partnership for Opportunity and Workforce and Economic Revitalization (POWER) Initiative grants target Appalachian communities that have experienced job losses in coal mining, coal-fired power plant closures, and coal-related supply chain and logistics industries. Applicants to this competitive program should have a transformational vision for diversifying the regional economy, addressing both short-term response and long-term restructuring. Applications should also be regional, collaborative, large-scale, and outcome-driven. Priorities for funding include workforce development, entrepreneurship, industry clusters, substance use disorders, and broadband access. Current funding availability is \$55 million. Since 2015, ARC has invested \$238 million in 293 projects touching 353 Appalachian counties. These investments are projected to create or retain more than 26,000 jobs and leverage more than \$1.1 billion in private investment.

## V. NEAR-TERM GOALS

The staff of the Interagency Working Group recommends the following goals to guide future activities.

### **Build long-term capacity to act effectively on the robust agenda.**

- Immediately stand-up an interim staffing team within the Department of Energy (DOE) to manage the day-to-day activities of the Working Group.
- Establish a regular cadence of full Working Group meetings.
- Prepare periodic update reports to the Co-Chairs and to the President as required by the Executive Order.
- Begin coordinating the Working Group's activities with other interagency efforts like the Executive Order on Advancing Racial Equity and Support for Underserved Communities, the Justice40 Initiative, the Buy America Executive Order, and the Supply Chain Executive Order, as well as the emerging rural development StrikeForce effort, especially relating to the mapping and delivery of investment to Energy Communities.

Within the next three months, kickoff a listening tour where a **senior Administration official visits with community members in each of the 25 priority Energy Communities** and propose and institutionalize a **formal stakeholder advisory structure**.

- The Working Group should create a **community-engagement subcommittee** and task it with achieving the above goal. The listening tour should begin within three months and all meetings should be completed by the end of the year.
- The meetings should demonstrate the Administration's commitment to supporting Energy Communities and solicit local ideas and policy recommendations.
- This subcommittee should make a recommendation to the Co-Chairs on the appropriate structure and timing to create a formal advisory group comprised of community, labor, private sector, philanthropy, government, tribal, and environmental justice leaders. The Working Group should also consider working through existing groups established by the Federal Advisory Committee Act (FACA), including EPA's National Environmental Justice Advisory Council (NEJAC), EPA's Local Government Advisory Committee (LGAC), and the newly formed White House Environmental Justice Advisory Council.

**Support job-creating investments in the priority Energy Communities** identified in this Report.

- The Working Group should create an **investments subcommittee** and task it with achieving the above goal.
- This subcommittee should compile a list of projects submitted by stakeholders and identify existing funds and technical assistance that can be deployed to support those projects. To date, the Working Group has collected more than 60 existing authorities that can be directed toward investments in Energy Communities.
- This subcommittee should identify additional community-based organizations or consortia in each of the prioritized Energy Communities and connect these groups with funding opportunities inventoried in this Report.

- This subcommittee should work with agency leads to ensure, when possible, proposed projects are evaluated based on their potential to create jobs and spur economic revitalization in both the short- and long-term.
- This subcommittee should ensure, when possible, that federal agency funding notices and competitive grant programs reflect the needs and priorities of Energy Communities.
- This subcommittee should evaluate proposals in the Build Back Better package and the FY2022 budget that can be similarly deployed to fund near-term, job-creating projects.

Within one year, **establish a one-stop shop for Energy Communities** to access the range of federal investments that can support community revitalization, job creation, and energy workers.

- The Working Group should create an **integration subcommittee** and task it with reviewing and assessing previous models of interagency integration, including the POWER Initiative, which used Memoranda of Understanding between agencies to coordinate delivery of funding to Energy Communities.
- This subcommittee should make a recommendation to the Co-Chairs within three months on which model to implement.
- This subcommittee should test pilot strategies to coordinate interagency regional planning. It should consider regional planning summits modeled off of existing structures, such as EDA's Regional Economic Development Summits (REDS); EPA's Building Blocks; and the Strong Cities, Strong Communities framework.

Develop a **strategy to shape long-term policy and investments in Energy Communities that deliver on the Working Group's guiding principles.**

- The Working Group should create a **policy subcommittee** and task it with developing recommendations to the Co-Chairs on the above goal within six months. In addition to the guiding principles, this strategy should be informed by recommendations from priority communities and lessons learned from taking immediate actions.
- This subcommittee should then review and finalize recommendations in a report to the President to be delivered by the end of 2021.
- This subcommittee should work with DOE's National Energy Technology Laboratory (NETL) and other relevant federal research resources to prepare a report on key economic issues relating to Energy Communities, including, but not limited to, those described in Section III (*Further Analysis*) of this Report. The subcommittee should produce an initial report within one year, and again every three years, to inform the Working Group and other stakeholders. In addition, the Working Group should commission other research projects on an as-needed basis to inform policymaking.

## APPENDIX A. MARCH STAKEHOLDER ENGAGEMENT

Given a key principle of the Interagency Working Group is ensuring impacted communities are empowered to direct their own futures, Working Group staff consulted a diverse group of national, regional, and community-based organizations in developing the Report recommendations. These stakeholders included community- and place-based organizations, public sector agencies, tribal leaders, philanthropic interests, private sector representatives, and labor unions.

A summary of key learnings from impacted communities follows:

**There are no “silver bullets.”** Stakeholders emphasized that there is no set of uniform solutions to community revitalization. Each community is different, and policy interventions must account for the unique circumstances and assets of each Energy Community.

*“It’s very different for coal, than it is for timber, than it is for oil and gas, etc. In general, regionalized economic development builds upon existing industry, which, again, looks different in different places...so there can’t be a one-size-fits-all approach.”*

**Local community engagement matters.** Nearly all stakeholders expressed a desire for direct federal engagement with local communities, rather than only engaging through state governments. Stakeholders felt that speaking directly to local communities demonstrated (a) the federal government’s commitment is real, and (b) that it leads to tangible investments the community can rally behind and support.

*“Our communities will have their opinions changed if they see physical change...it’s moving from talk to action and actually getting those things to happen in rural places as opposed to just seeing them on the news.”*

**Immediate jobs and a long-term strategy.** Community members were clear that many Energy Communities need immediate support and emphasized the communities need immediate, good jobs that are ready to go when the plants shut down. Public investments, such as abandoned mine land reclamation and infrastructure projects, can serve as important bridge jobs. Communities also underscored short-term investments alone would be insufficient. What’s also needed are long-term investments in workforce development and launching new industries to enable Energy Communities to sustain themselves over the long term.

*“There is an opportunity to make large strides in the near-term; then...the hope will be to build-out the long-term vision with the highest levels of leadership dedicating staff focused on coal and Energy Community transition...”*

**Job creation and job retention.** Representatives of energy workers emphasized the need to think about job retention, not just job creation. Several encouraged the Department of Energy (DOE) to pilot new technologies that could allow manufacturing and energy workers to remain in their jobs.

*“Carbon capture and storage and other technologies could be game-changers that reimagine U.S. industrial policy.”*

**Invest in workers.** Stakeholders emphasized that even as community revitalization occurs, there will still need to be ongoing investments in the workers who are losing access to jobs because of declines in the fossil fuel industry. Several stakeholders also observed that it would be a mistake to assume all, or even most, traditional energy jobs will transition into clean energy and renewable jobs; therefore, the emphasis should be on finding “high road” or “union” jobs rather than “green jobs” alone.

*“Workers need robust support over time—to keep folks whole and empower people as individuals to make choices about their lives.”*

**Invest in local entrepreneurs and place-based organizations.** Many stakeholders emphasized the hard work happening at the local level to revitalize Energy Communities and the difficulties many local businesses and community organizations face obtaining resources. Small business owners talked about the struggles they face accessing capital to grow their businesses.

*“Another challenge that exists in Central Appalachia... there is no venture capitalist or banking capital...people have to go outside West Virginia to find the investors, which means any benefits flow outside the state as well.”*

**Infrastructure matters.** Several stakeholders described the need for additional infrastructure investments to enable economic revitalization, particularly the need for access to broadband. Many community representatives referenced access to broadband as a key impediment to accessing remote work jobs and attracting new companies.

*“Access to broadband is a barrier. Many families are struggling to make it possible for their children to have access to school [while remote during the pandemic].”*

## LASTING COMMUNITY ENGAGEMENT

Stakeholders recommended three engagement actions for the Interagency Working Group to build upon near-term momentum and generate long-term success. The first is for the Administration to conduct a listening tour of Energy Communities across the nation. Second, the Interagency Working Group should prioritize regional convenings to facilitate developing regional plans and identifying funding opportunities. Third, the Interagency Working Group should consider creating a permanent federal advisory committee focused on economic revitalization of Energy Communities.



**Town Hall Meetings:** As a first step, the Interagency Working Group should conduct a high-level listening tour in impacted communities. Senior Administration officials—including National Economic Council (NEC) Director Brian Deese, White House National Climate Advisor Gina McCarthy, and Secretary of Energy Jennifer Granholm—could lead town hall meetings in communities from West Virginia to Wyoming. The President and Vice President should also consider kicking off the tour. The goal would be to (a) hear directly from the people most impacted by transition, and (b) demonstrate that the federal government is listening—and acting. This initiative would enable Administration leadership to gain unfiltered feedback from those on the ground about their hopes, concerns, experiences, and suggestions about what it will take to rebuild their local communities and economies.

*“Talk to the local people. Don’t stop at the government level.  
Bring it to the people.”*

**Regional Planning:** The Interagency Working Group should work to super-charge an existing Department of Commerce Economic Development Administration (EDA) program to convene regional stakeholders and federal government staff to develop regional plans and identify funding opportunities. As part of this program, EDA, in collaboration with other federal partners, and the Interagency Working Group would lead regional summits where select community development organizations convene local community members to discuss three to five prioritized projects; EDA would then convene representatives from Interagency Working Group agencies with resources relevant to the proposed plan. This strategy addresses needs identified by several stakeholders to (a) provide community members an opportunity to direct the future of their own communities, and (b) improve integration of federal support programs.

*“Most sustainable solutions are built from the ground up. Local leaders  
and community members have solutions and they need  
to be engaged with to learn what works.”*

**Federal Advisory Committee:** Numerous stakeholders observed the importance of the initial series of input-gathering meetings and the need for such a feedback mechanism to continue long term. Consistent with the Federal Advisory Committee Act (FACA), the Interagency Working Group should establish a FACA of representatives nominated by community groups and appointed by the President. The group’s focus should include producing an annual report on transition progress and potentially identifying communities for funding prioritization. Overall, the FACA would provide an institutionalized, long-term forum for diverse impacted communities to provide ongoing public policy advice and feedback.

*“Things don’t last between Administrations, so how can we create an agenda  
that is bipartisan and community-focused? There should be community-centered  
solutions that can stay in place long-term and not solely be associated with a  
specific Administration’s agenda.”*

# APPENDIX B. COUNTIES WITHIN PRIORITY COMMUNITIES

AREAS WITH HIGH CONCENTRATIONS OF DIRECT COAL SECTOR JOBS				
RANK	BUREAU OF LABOR STATISTICS AREA	COUNTIES		
1	<b>Southern West Virginia non-metropolitan area</b>	Greenbrier County Logan County McDowell County Mercer County	Mingo County Monroe County Nicholas County Pocahontas County	Summers County Webster County Wyoming County
2	<b>East Kentucky non-metropolitan area</b>	Bell County Breathitt County Carter County Clay County Elliott County Floyd County Harlan County	Jackson County Johnson County Knott County Lawrence County Lee County Leslie County Letcher County	Magoffin County Martin County Morgan County Owsley County Perry County Pike County Wolfe County
3	<b>Wheeling, West Virginia-Ohio</b>	Belmont County	Marshall County	Ohio County
4	<b>Southwest Virginia non-metropolitan area</b>	Bland County Buchanan County Carroll County Dickenson County Galax city Grayson County	Henry County Lee County Martinsville city Norton city Patrick County Russell County	Smyth County Tazewell County Wise County Wythe County
5	<b>Alaska non-metropolitan area</b>	Aleutians East Borough Aleutians West Census Area Bethel Census Area Bristol Bay Borough Denali Borough Dillingham Census Area Haines Borough Hoonah-Angoon Juneau Borough Kenai Peninsula Borough Ketchikan Gateway Borough Kodiak Island Borough	Kusilvak Lake and Peninsula Borough Nome Census Area North Slope Borough Northwest Arctic Borough Petersburg Prince of Wales-Hyder Prince of Wales-Outer Ketchikan Census Area Sitka Borough Skagway Skagway-Hoonah-Angoon Census Area	Southeast Fairbanks Census Area Valdez-Cordova Census Area Wade Hampton Census Area Wrangell Wrangell-Petersburg Census Area Yakutat Borough Yukon-Koyukuk Census Area

## AREAS WITH HIGH CONCENTRATIONS OF DIRECT COAL SECTOR JOBS

RANK	BUREAU OF LABOR STATISTICS AREA	COUNTIES		
6	<b>West Kentucky non-metropolitan area</b>	Ballard County Breckinridge County Caldwell County Calloway County Carlisle County Crittenden County Fulton County	Graves County Grayson County Hickman County Hopkins County Livingston County Lyon County Marshall County	McCracken County Muhlenberg County Ohio County Todd County Union County Webster County
7	<b>Bremerton-Silverdale, Washington</b>	Kitsap County		
8	<b>Eastern Wyoming non-metropolitan area</b>	Albany County Campbell County Carbon County Converse County	Crook County Goshen County Johnson County Niobrara County	Platte County Sheridan County Weston County
9	<b>Western Wyoming non-metropolitan area</b>	Big Horn County Fremont County Hot Springs County Lincoln County	Park County Sublette County Sweetwater County	Teton County Uinta County Washakie County
10	<b>Arizona non-metropolitan area</b>	Apache County Gila County Graham County	Greenlee County La Paz County	Navajo County Santa Cruz County
11	<b>Northern West Virginia non-metropolitan area</b>	Barbour County Braxton County Calhoun County Doddridge County Gilmer County Grant County Hardy County Harrison County	Jackson County Lewis County Marion County Mason County Morgan County Pendleton County Pleasants County Randolph County	Ritchie County Roane County Taylor County Tucker County Tyler County Upshur County Wetzel County
12	<b>South Illinois non-metropolitan area</b>	Edwards County Franklin County Gallatin County Hamilton County Hardin County Jefferson County	Johnson County Massac County Perry County Pope County Pulaski County Randolph County	Saline County Union County Wabash County Washington County Wayne County White County
13	<b>Central Utah non-metropolitan area</b>	Beaver County Garfield County Iron County	Kane County Millard County Piute County	Sanpete County Sevier County Wayne County

## AREAS WITH HIGH CONCENTRATIONS OF DIRECT COAL SECTOR JOBS

RANK	BUREAU OF LABOR STATISTICS AREA	COUNTIES		
14	<b>Southern Indiana non-metropolitan area</b>	Crawford County Daviess County Dubois County Gibson County Greene County Jackson County	Jefferson County Jennings County Knox County Lawrence County Martin County Orange County	Perry County Pike County Ripley County Spencer County Switzerland County
15	<b>California-Lexington Park, Maryland</b>	St. Mary's County		
16	<b>Farmington, New Mexico</b>	San Juan County		
17	<b>Northeast Virginia non-metropolitan area</b>	Accomack County Essex County King and Queen County King George County	Lancaster County Middlesex County Northampton County Northumberland County	Richmond County Westmoreland County
18	<b>West North Dakota non-metropolitan area</b>	Adams County Billings County Bottineau County Bowman County Burke County Divide County Dunn County Emmons County	Golden Valley County Grant County Hettinger County Kidder County McHenry County McKenzie County McLean County Mercer County	Mountrail County Pierce County Renville County Sheridan County Slope County Stark County Ward County Williams County
19	<b>Greeley, Colorado</b>	Weld County		
20	<b>College Station-Bryan, Texas</b>	Brazos County	Burleson County	Robertson County
21	<b>Southwest Alabama non-metropolitan area</b>	Choctaw County Clarke County Conecuh County Dallas County	Escambia County Greene County Marengo County Monroe County	Perry County Sumter County Washington County Wilcox County
22	<b>Grand Junction, Colorado</b>	Mesa County		
23	<b>Beckley, West Virginia</b>	Fayette County	Raleigh County	
24	<b>Charleston, West Virginia</b>	Boone County	Clay County	Kanawha County
25	<b>Western Pennsylvania non-metropolitan area</b>	Clarion County Crawford County Forest County	Greene County Indiana County Lawrence County	Venango County Warren County

## ENDNOTES

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- <sup>1</sup> Data USA. <https://datausa.io/profile/geo/sheridan-wy-31000US43260#economy>
- <sup>2</sup> Bowen, E., Christiadi, Deskins, J., & Lego, B. (2018, January). An Overview of the Coal Economy in Appalachia. West Virginia University. Commissioned by the Appalachian Regional Commission. <https://www.arc.gov/wp-content/uploads/2018/01/CIE1-OverviewofCoalEconomyinAppalachia-2.pdf>
- <sup>3</sup> The Bureau of Labor Statistics reports jobs data by metro and non-metro areas in their geospatial data, while the census reports population data by county. The Interagency Working Group is aware that many stakeholder and policymakers support alternative definitions of impacted communities at the county level, and the Working Group intends to incorporate their analyses and recommendations into future efforts.
- <sup>4</sup> Justman, D., Rose K., Thomas, R. (2020). Development of a unified and comprehensive American Coal Database (ACD) to support source to end coal resource analytics, 2020, International Pittsburgh Coal Conference. [https://www.engineering.pitt.edu/Sub-Sites/Conferences/PCC/\\_Library/2020-PCC/2020-PCC-Program/](https://www.engineering.pitt.edu/Sub-Sites/Conferences/PCC/_Library/2020-PCC/2020-PCC-Program/)
- <sup>5</sup> U.S. Department of Energy, Energy Information Administration, Independent Statistics & Analysis. *Alaska State Profile and Energy Estimates*. <https://www.eia.gov/state/?sid=AK#tabs-3>
- <sup>6</sup> Federal Reserve Bank of St. Louis. (2021, February). *All Employees, Coal Mining*. <https://fred.stlouisfed.org/series/CEU1021210001> (2020)
- <sup>7</sup> U.S. Bureau of Labor Statistics. *Labor Force Statistics from the Current Population Survey*. <https://www.bls.gov/cps/demographics.htm#age>
- <sup>8</sup> U.S. Department of Energy, Energy Information Administration, Independent Statistics & Analysis. (2020, October 5). *Annual Coal Report*. <https://www.eia.gov/coal/annual/> (2020)
- <sup>9</sup> U.S. Department of Energy, Energy Information Administration, Independent Statistics & Analysis. *Electricity explained, Electricity in the United States* <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us.php>
- <sup>10</sup> U.S. Department of Energy, Energy Information Administration, Independent Statistics & Analysis. (2021, January 21). Nuclear and coal will account for majority of U.S. generating capacity retirements in 2021. *Today in Energy*. <https://www.eia.gov/todayinenergy/detail.php?id=46436>
- <sup>11</sup> 2019 Bureau of Labor and Statistics (BLS) data using metro and non-metro areas were used to determine this list, with 21 Occupational Employment Sector (OES) categories representing direct oil, gas, mining, refining, and power generation sector occupations. For the top 25 coal-dependent BLS areas, the coal-only direct jobs numbers were divided by the total number of jobs for each area. The 25<sup>th</sup> area was added for geographic diversity.
- <sup>12</sup> SRI International. (2017). *Innovative Metrics for Economic Development: Supplemental Report*. Arlington, VA: SRI International <https://eda.gov/files/performance/REMI-Supplemental-Report.pdf>