



THE UNITED STATES' (DOE) ACTION PLAN FOR POWER SECTOR DECARBONIZATION



BACKGROUND

A collaborative report from the Clean Energy Ministerial (CEM) on *Lessons Learned for Rapid Decarbonization of Power Sectors* was delivered to energy ministers and presented at the 13th CEM (CEM13) in the United States in September 2022. In light of these lessons learned and discussed at CEM13, several jurisdictions signaled intent to develop Action Plans for power sector decarbonization. The first cohort of Action Plans was released at CEM14 in India in July 2023. The U.S. Department of Energy (DOE) is pleased to release this Action Plan as a contribution to the second cohort of Action Plans released at CEM15 in Brazil in October 2024.

The Action Plans, supported by the 21st Century Power Partnership, and other CEM workstreams via direct technical assistance and capacity building, are intended to focus on select implementation actions, given each country's existing power sector goals and activities, and are an opportunity for countries to display leadership in power sector decarbonization. The Action Plans are organized in a framework for Planning, Building and Operating, as well as Stakeholder Engagement where appropriate based on country priorities. They complement, but are differentiated from, other international power sector initiatives such as the Breakthrough Agenda (whose broad purpose is to raise collective ambition) and the Global Power System Transformation Consortium (whose goals are to convene power system operators to accelerate research innovations and foster peer learning).

These Action Plans are voluntary, developed by each country individually, not comprehensive of all activities within the jurisdiction, and are living documents that are subject to change. This Action Plan, developed by DOE, is focused on federal actions for power sector decarbonization primarily led by DOE. There are many other actions being led by other U.S. government agencies, or at the state and local level, that are not featured in this Action Plan.



United States

U.S. CLIMATE LEADERSHIP: A GOVERNMENT-WIDE EFFORT

As the United States pursues significant action to reduce greenhouse gas emissions and achieve climate commitments, U.S. federal agencies have responded by taking valuable steps to integrate climate-focused initiatives in their policies and programs.

Federal agencies that have adopted climate Action Plans to improve adaptation and increase resilience:



Source: The White House (2021)



DOE STRATEGIC ACTIONS

As the U.S. federal agency dedicated to the energy sector, DOE has set strategic priorities to achieve Executive Order (EO) 14008, which aims for 100% carbon pollution-free electricity by 2035.

In May 2023, DOE released the *On the Path to 100% Clean Electricity* report. This report identified 10 strategic actions needed to move toward 100% clean electricity and realize the benefits of a fully decarbonized power system. These 10 actions include:

1. Maintain the Existing Clean Generation Fleet and Increase Fleet Flexibility Where Appropriate
2. Rapidly Increase Deployment of Established Clean Generation and Storage Technologies
3. Increase Options for Clean Generation, Storage, and Carbon Management Technologies
4. Plan and Deploy Enabling Infrastructure
5. Proactively Invest In and Engage With Disadvantaged and Energy Communities To Ensure the Impacts and Benefits of 100% Clean Power Are Distributed Equitably
6. Augment Planning, Operations, and Markets to Enable 100% Clean Grids
7. Ensure System Security and Resiliency as New Technologies and Threats Emerge
8. Dramatically Accelerate Electric Energy Efficiency and Demand Flexibility
9. Strengthen Domestic Manufacturing Capabilities and Develop Resilient and Sustainable Supply Chains
10. Equitably Expand the U.S. Clean Energy Workforce.

This Action Plan is focused on a current subset of U.S. federal initiatives and does not represent the full scope and depth of U.S. power sector decarbonization priorities. To read the *On the Path to 100% Clean Electricity* report, visit:

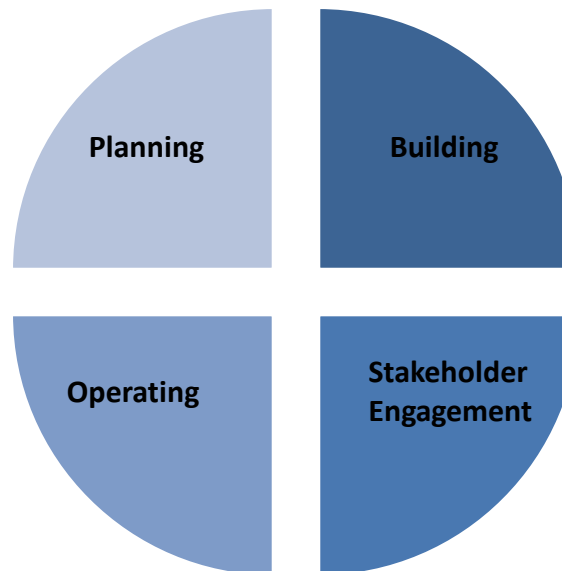
<https://www.energy.gov/policy/articles/path-100-clean-electricity>.



DOE STRATEGIC ACTIONS

The 10 strategic actions identified in the *On the Path to 100% Clean Electricity* report represent **some** of the key areas for U.S. power system decarbonization. In the context of this Action Plan, **these 10 strategic actions map into the four sections of Planning, Building, Operating, and Stakeholder Engagement**. These strategic actions may fall into more than one category, but this mapping helps to align the U.S. Action Plan with other Clean Energy Ministerial Action Plans for the power sector.

- Increase Options for Clean Generation, Storage, and Carbon Management Technologies
 - Plan and Deploy Enabling Infrastructure
 - Augment Planning, Operations, and Markets to Enable 100% Clean Grids.
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- Maintain the Existing Clean Generation Fleet and Increase Fleet Flexibility Where Appropriate
 - Ensure System Security and Resiliency as New Technologies and Threats Emerge.



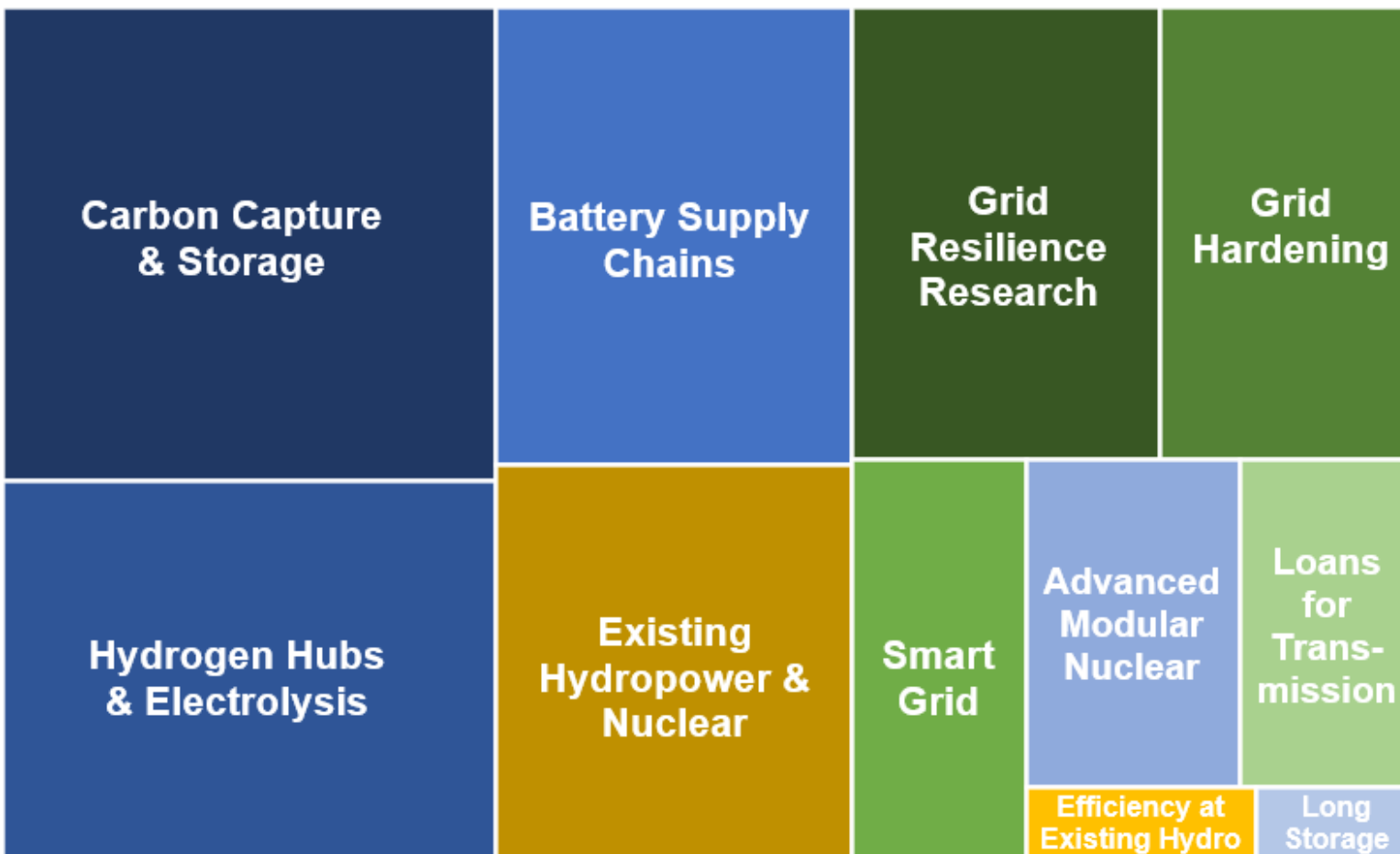
- Rapidly Increase Deployment of Established Clean Generation and Storage Technologies
 - Dramatically Accelerate Electric Energy Efficiency and Demand Flexibility
 - Strengthen Domestic Manufacturing Capabilities and Develop Resilient and Sustainable Supply Chains.
-
- Proactively Invest In and Engage With Disadvantaged and Energy Communities To Ensure the Impacts and Benefits of 100% Clean Power Are Distributed Equitably
 - Equitably Expand the U.S. Clean Energy Workforce.

This Action Plan focuses on a current subset of DOE initiatives aligned with the 10 strategic actions and grouped into the Planning, Building, Operating, and Stakeholder Engagement Framework. These initiatives provide some highlights into recent actions taken by DOE.



INFRASTRUCTURE INVESTMENTS AND JOBS ACT

Select Power System Investments in Infrastructure Investment and Jobs Act (i.e., Bipartisan Infrastructure Law [BIL])



Signed into law in November 2021

Investments in Research and Development:
\$28.5 billion

Investments in Existing Zero-Carbon Generation:
\$6.7 billion

Investments in Grid Infrastructure:
\$16.5 billion

Note: these values are not inclusive of all investments in the legislation (e.g., electric vehicle charging infrastructure).

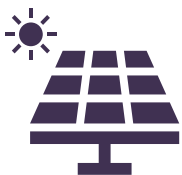
Data: World Resources Institute (2021)



INFLATION REDUCTION ACT

Select Power System Investments in the Inflation Reduction Act (IRA)

Customer-Side Energy Resources



10 years of tax credits on rooftop solar and various electric appliances

\$4,000 consumer tax credit for individuals to buy used clean vehicles, and up to \$7,500 tax credit to buy new clean vehicles



Domestic Manufacturing

~\$10 billion in production tax credits to accelerate U.S. manufacturing of solar panels, wind turbines, and batteries



~\$30 billion in investment tax credits to build clean technology manufacturing facilities (e.g., wind turbines and solar panels)



Power Sector Decarbonization



~\$30 billion in tax credits for clean electricity generation and storage



~\$27 billion clean energy technology accelerator to support deployment of technologies to reduce emissions

Note: these values are not inclusive of all investments in the legislation (e.g., energy efficiency incentives).

Source: U.S. Senate (2022)



United States

I. PLANNING

Action Plan for Rapid Decarbonization of the Power Sector



MODERNIZE THE TRANSMISSION SYSTEM TO IMPROVE RELIABILITY AND RESILIENCE

Modernize the transmission system through the utilization of state-of-the-art grid technologies and the building of new capacity to enable interconnection of necessary clean electricity resources and improve system reliability and resilience to extreme weather events and other threats.

DOE: National Transmission Needs Study (October 2023)

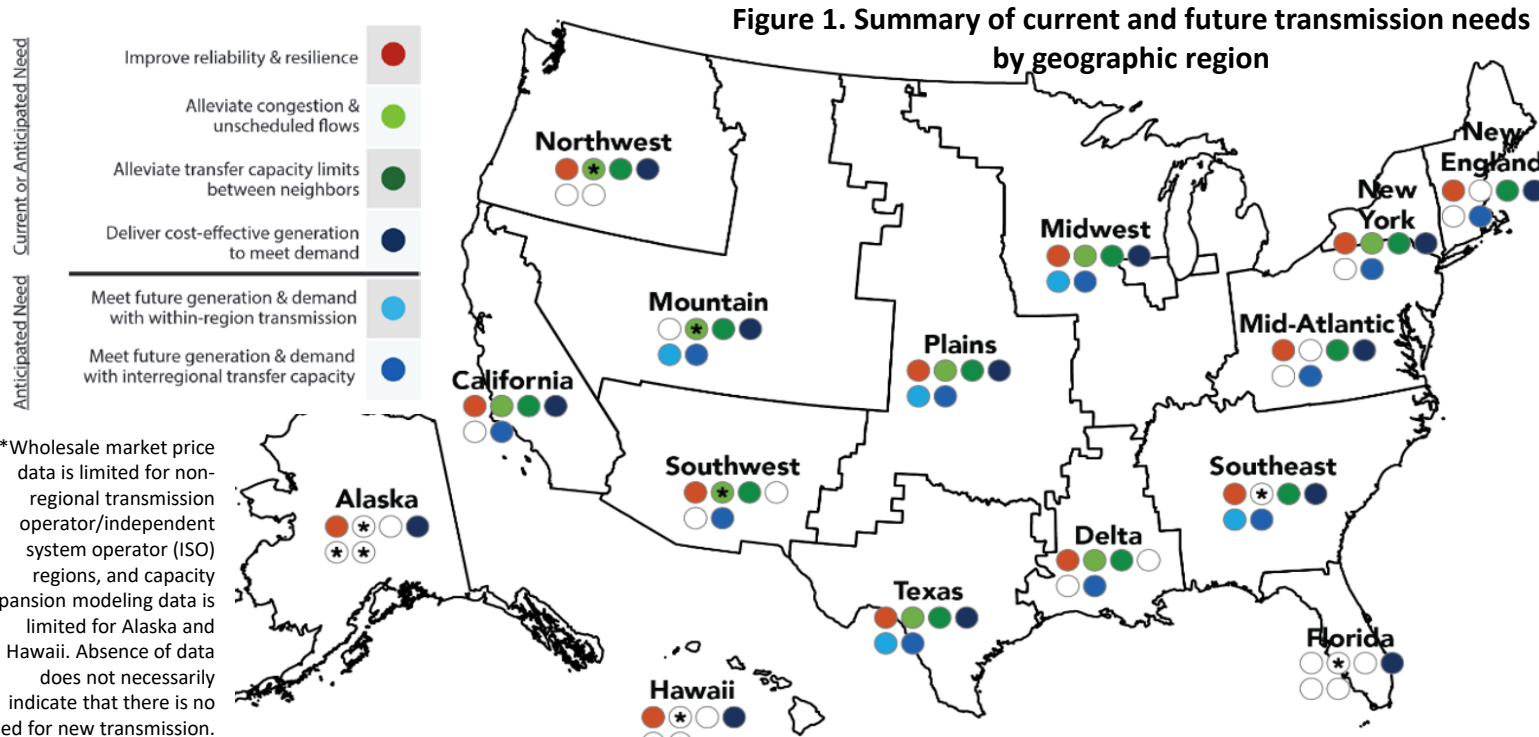
Identifies present or expected transmission capacity constraints or congestions (regional and interregional) in geographic areas that would benefit from upgraded, updated, new, or alternative transmission solutions.



DOE: National Transmission Planning Study (ongoing)

Identify transmission that will provide broad-scale benefits to electric customers, inform regional and interregional transmission planning processes, and identify interregional and national strategies to accelerate decarbonization while maintaining system reliability.

IRA also included \$100 million for interregional and offshore wind transmission planning, modeling, and analyses. The Grid Deployment Office's Transmission Facilitation Program is a BIL program with \$2.5B to support construction of large-scale transmission lines.



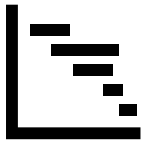
Source: DOE (2023)



MODERNIZE THE DISTRIBUTION SYSTEM TO ENABLE INTERCONNECTION

Modernize the distribution system to enable interconnection of the necessary clean electricity resources through the utilization of state-of-the-art grid technologies and the building of new capacity.

DOE Office of Electricity: Distribution Grid Transformation Activities



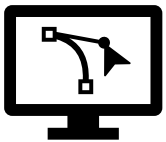
Integrated Distribution System Planning

An Integrated Distribution System Planning process provides a decision framework for developing holistic infrastructure investment strategies for distribution grids.



Operational Coordination

DOE is examining regulatory, business, and technical practices needed to effectively coordinate grid-edge resources (i.e., distributed generation, storage, flexible loads, electric vehicles, etc.).



Distribution System Design

DOE is studying the functional and structural features needed to support envisioned future grid scenarios and developing reference designs based upon grid architecture principles.

To enable the distribution grid of the future.

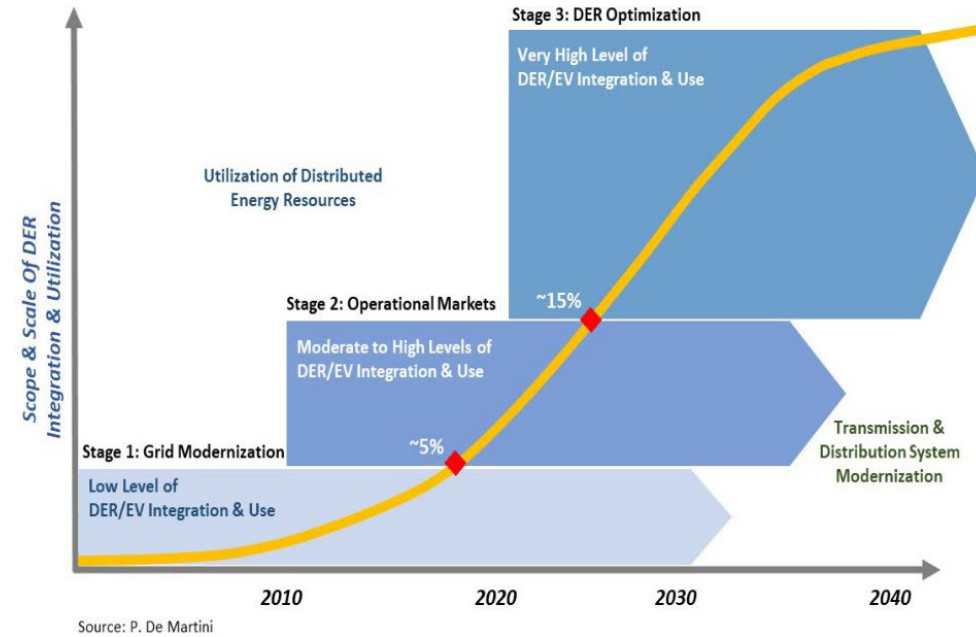


Figure 2. Distribution system evolution

Source: DOE Office of Electricity (2024)



MAINTAIN RESOURCE ADEQUACY

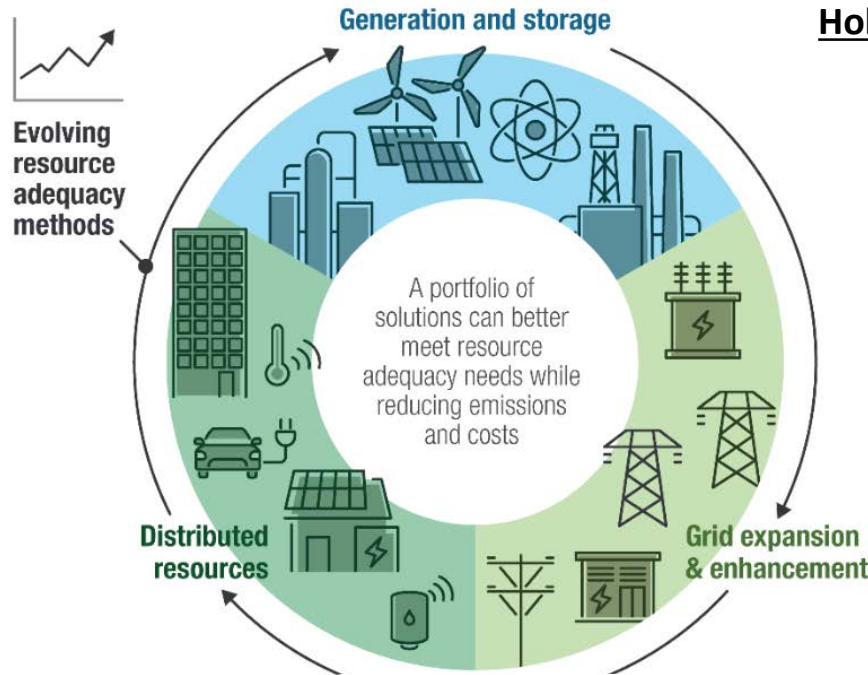
Maintain resource adequacy as the transition to 100% clean energy occurs.

DOE Office of Policy: Future of Resource Adequacy (April 2024)

HOLISTIC APPROACH TO RESOURCE ADEQUACY



Focusing solely on natural gas is risky, both for reliability and for the climate



Holistic Approach To Ensure Reliable, Clean, Secure, and Affordable Power:

Generation and Storage

- New deployment of long-duration energy storage, hydropower, nuclear energy, and geothermal
- Expansion of wind and solar, especially paired with energy storage
- Natural gas generators that can use clean hydrogen or retrofitted with carbon capture.

Grid Enhancement and Expansion

- Interregional transmission capacity to increase diversity of resources
- Reconductoring existing transmission lines to increase capacity on existing rights of way
- Deployment of grid-enhancing technologies to maximize electricity through existing lines.

Demand Resources

- Continued deployment of energy-efficient end-use technologies to reduce overall power demand
- Demand response to provide additional load flexibility
- Distributed generation and storage resources such as rooftop solar, batteries, and electric vehicles.

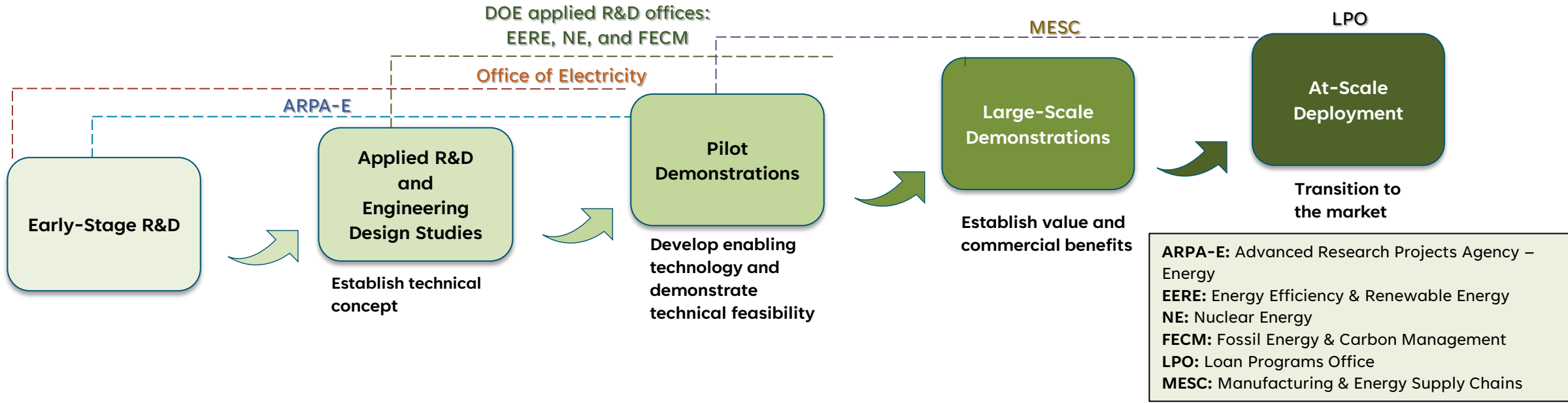
Figure 3. Groups of solutions to meet resource adequacy needs over the next decade

Source: DOE Office of Policy (2024)

ENSURE CRITICAL AND NON-CRITICAL RAW MINERAL AND MATERIAL SUPPLY TO ENABLE THE CLEAN ENERGY TRANSITION

Ensure the critical and non-critical raw mineral and material supply is acquired through environmentally sustainable, robust, secure, transparent, and globally cost-competitive industry network.

DOE Critical Minerals Research, Development, and Deployment Program



Technology Transfer, Commercialization, and Research Investments: Office of Technology Transitions

Advance U.S. Energy Policy, Support U.S. Competitiveness, and Enhance Global Energy Security: Office of International Affairs

Emerging Technologies

C M M Technology Development

Established Technologies



United States

II. BUILDING

Action Plan for Rapid Decarbonization of the Power Sector



EFFICIENT, INCLUSIVE SITING AND PERMITTING OF CLEAN ENERGY

Ensure that efficient and inclusive siting and permitting processes enable clean electricity generation and storage projects to secure sites and receive approval for construction in a predictable and timely manner while ensuring strong community engagement, low-impact development, and robust mitigation measures where appropriate.

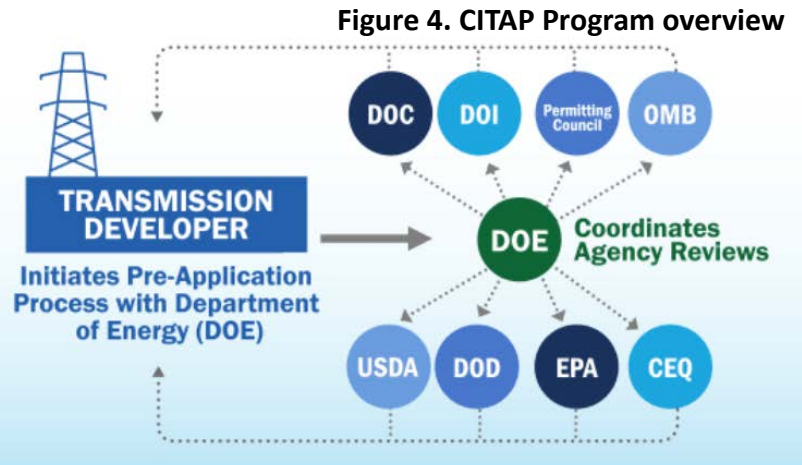
DOE Coordinated Interagency Authorization and Permits (CITAP) Program

U.S. Federal Energy Regulatory Commission (FERC):

FERC has considerable federal jurisdiction over interstate power actions and has developed Order No. 1920, its latest transmission and cost allocation rule.

GDO
GRID DEPLOYMENT OFFICE

Coordinated Interagency Authorizations and Permits (CITAP) Program



- Requirement to conduct and periodically update long-term transmission planning to anticipate future needs
- Requirement to consider a broad set of benefits when planning new facilities
- Requirement to identify opportunities to modify in-kind replacement of existing transmission facilities to increase their transfer capability
- Customers pay only for projects from which they benefit
- Expands states' roles throughout the process of planning, selecting, and determining how to pay for transmission facilities.

Source: FERC (2024b)



Average time to site and permit a transmission project is almost cut in half

National Interest Electric Transmission Corridors:

DOE is designating these transmission corridors, which unlock federal financing and facilitate siting for clean energy projects. DOE is also providing grants to support state and local siting authorities.

*Source: Contextualizing electric transmission permitting: data from 2010 to 2020, Niskanen Center, 2024



STREAMLINE GRID INTERCONNECTION PRACTICES

Ensure grid interconnection practices across the country are efficient, predictable, fair, and timely.

FERC Order No. 2023: Improvements to Generator Interconnection Procedures and Agreements (2023)

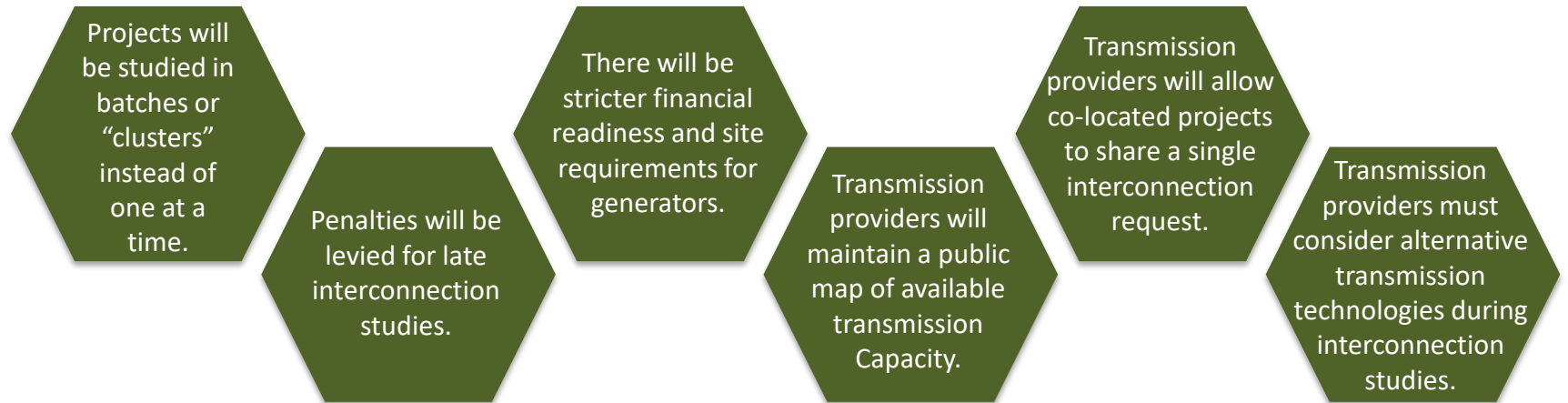


Objectives:

- Reduce backlogs for projects seeking to interconnect to the transmission system
- Improve certainty in the interconnection processes managed by transmission providers
- Ensure transmission system access for new technologies.



Select Changes to the Interconnection Process for Transmission Providers and Generators in the Final Rule:



Source: FERC (2024a)

ADVANCE THE DEPLOYMENT OF MICROGRIDS

Enable microgrids as an option for power sector decarbonization.

DOE's Office of Electricity: Microgrid R&D Program and Strategy

Vision for Program and R&D Efforts:

By 2035, microgrids are envisioned to be essential building blocks of the future electricity delivery system to support resilience, decarbonization, and affordability.

Six Strategic R&D Areas:

R&D Broad Categories:

- A** Infrastructure and Operations
- B** Analysis and Tools
- C** Institutional Framework

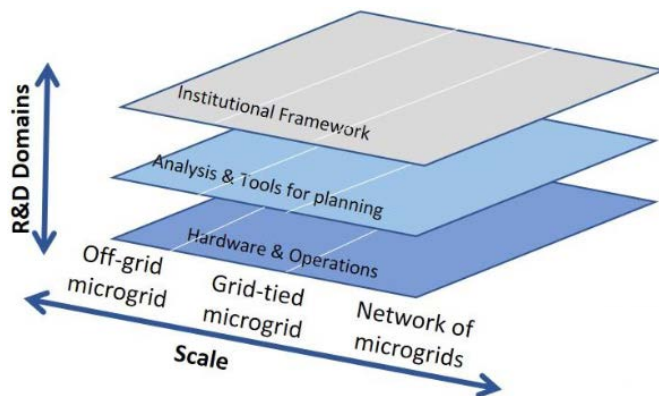


Figure 5. R&D space of strategic importance for microgrid program

1. Transmission and Distribution Co-Simulation of Microgrid Impacts and Benefits **B**
2. Building Blocks for Microgrids **A B**
3. Microgrids as a Building Block for Future Grids **A**
4. Advanced Microgrid Control and Protection **A**
5. Integrated Models and Tools for Microgrid Planning and Designs With Operations **B C**
6. Enabling Regulatory and Business Models for Broad Microgrid Deployment. **C**

Source: Ferreira et al. (2021)



United States

III. OPERATING

Action Plan for Rapid Decarbonization of the Power Sector



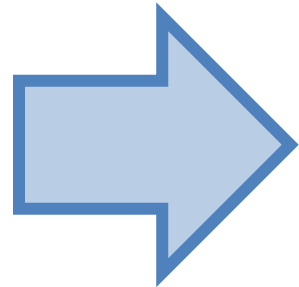
ADVANCE MARKET DESIGNS FOR CLEAN ENERGY ASSETS

Ensure the nation's competitive wholesale energy markets provide adequate compensation to enable appropriate development of clean energy capacity while maintaining reliability and affordability.



EO on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability (December 2021)

- Affirms the goal of the United States to achieve a decarbonized power system by 2035 and net-zero economy by 2050.
- Establishes a whole-of-government approach to encourage innovation and environmental stewardship for the promotion of clean energy industries.



DOE Wholesale Electricity Market Studies and Engagement Program (September 2023)

- Through the Grid Deployment Office, the program provides technical and financial assistance to develop, expand, and improve wholesale electricity markets.
- First round of selected projects involve grid operators CAISO, ERCOT, SPP, MISO, PJM, NYISO, and ISO-NE.

Market and Retail-rate Know-how for the Energy Transition (MARKET) program (May 2024)

- Through EERE, the MARKET program provides technical assistance and support to participants in four key areas for improving energy market design.
- Priority topics for the MARKET program include:
 - Retail rates
 - Distributed energy resources and virtual power plants
 - Wholesale electricity markets
 - Reliability and resilience benefits of renewables.



Source: The White House (2021)



ENABLE AND IMPROVE THE OPERATION OF EXISTING CLEAN POWER SOURCES

Enable the continued operation and improved environmental performance of existing variable and non-variable clean power sources, including hydro, nuclear, geothermal, and wind.

Select Programs and Incentives Authorized by BIL (2021) and IRA (2022)



Hydropower

- BIL:
 - \$554 million to maintain and enhance existing hydropower facilities
 - \$125 million to incentivize hydropower production
 - \$75 million to incentivize efficiency improvements for hydropower facilities.
- Production Tax Credit (IRA): up to \$33/MWh for electricity produced if labor requirements are met.



Nuclear

- Civil Nuclear Credit Program (BIL): \$2.17 billion to preserve existing U.S. reactor fleet
- Zero-Emission Nuclear Power Production Tax Credit (IRA): \$15/MWh for electricity produced by existing nuclear fleet.



Geothermal

- Manufacturing and Deployment Incentives (BIL): \$1.3 billion for manufacturing in coal communities, enhanced geothermal demonstration projects, and deployment on mine lands
- Production Tax Credit (IRA): \$25/MWh for electricity produced, with potential bonuses depending on location, in addition to investment tax credits for new projects.



ENSURE POWER SYSTEM FLEXIBILITY AND RESILIENCE

Ensure the U.S. power system is able to withstand, maintain critical function during, and quickly recover from disruption.

DOE Grid Resilience and Innovation Partnerships Program

Main funding mechanisms to enhance grid flexibility and improve resilience against extreme weather and climate change.

Formula Grants
Program for States
and Tribes
(\$2.3 billion)

- Awards funds to states, Tribes, and territories for projects that generate the greatest community benefit providing clean, affordable, and reliable energy
- Designed to strengthen and modernize grids against wildfires, extreme weather, and other natural disasters.

Grid Resilience
Utility and Industry
Grants
(\$2.5 billion)

- Funds transformational transmission and distribution technology solutions
- Will mitigate weather hazards across a region or within a community (wildfires, floods, hurricanes, extreme heat, extreme cold, etc.).

Smart Grid Grants
(\$3 billion)

- Funds technology focused on increasing capacity on the transmission system, preventing faults leading to wildfires or other disturbances, integrating renewable energy, and facilitating electric vehicles and other grid-edge devices
- Smart grid technologies will demonstrate a pathway to wider market adoption.

Grid Innovation
Program
(\$5 billion)

- Provides financial assistance to one or more states, Tribes, local governments, and public utility commissions to work with electric sector industry partners
- Areas of interest include interregional transmission projects, investments that accelerate clean energy interconnection, distribution grid assets to provide backup power, etc.

Source: DOE Grid Deployment Office (2023)

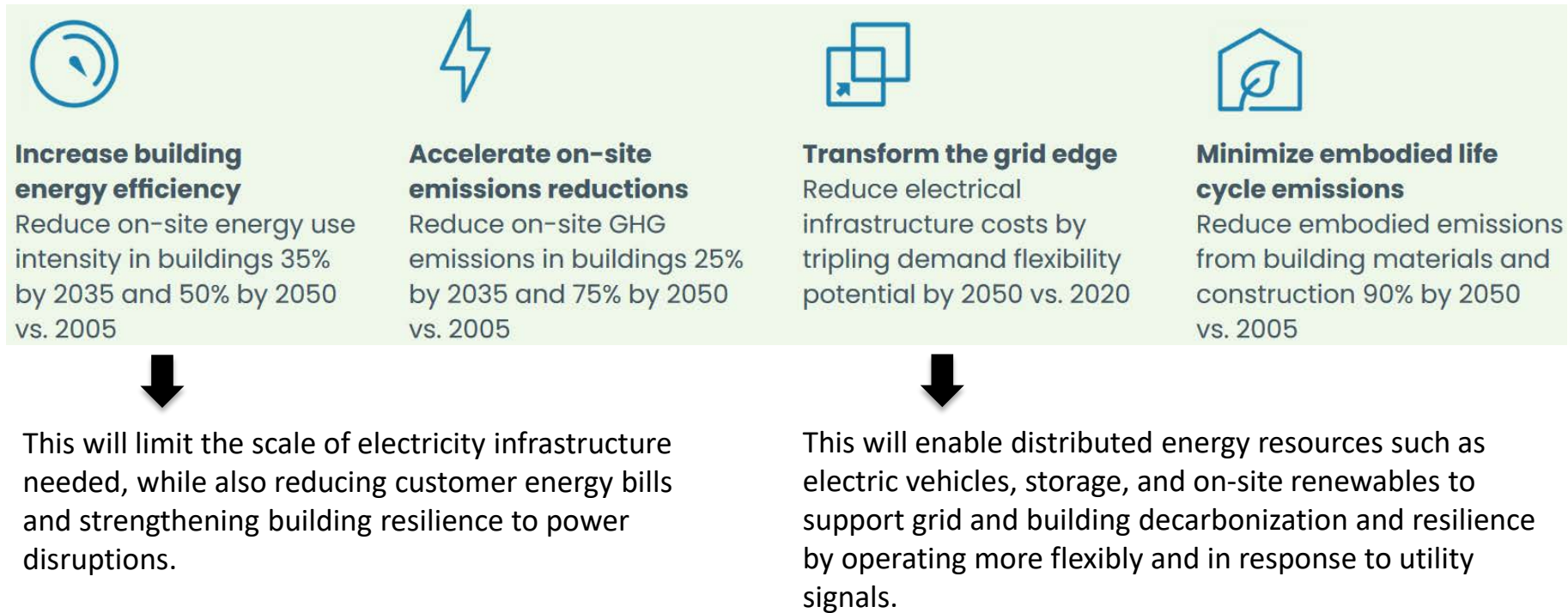


DEMAND-SIDE MANAGEMENT TO SUPPORT SYSTEM INTEGRATION

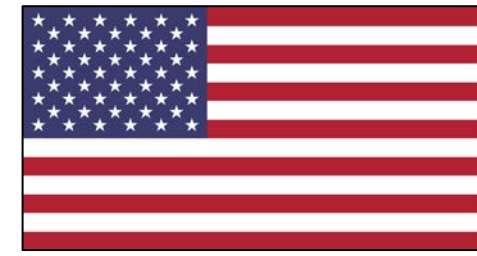
Strategically manage electricity demand to reduce infrastructure investment requirements and support system integration.

DOE: National Blueprint for Decarbonizing the Buildings Sector (April 2024)

Figure 6. Strategic objectives of the national blueprint



Source: DOE (2024)



United States

IV. STAKEHOLDER ENGAGEMENT AND INCLUSION

Action Plan for Rapid Decarbonization of the Power Sector

U.S. priorities for power system decarbonization reflect integrated goals related to a just energy transition. These integrated priorities are highlighted in this section of the Action Plan. Stakeholder engagement and inclusion cuts across the planning, building, and operating phases.

INTEGRATING LABOR, COMMUNITY ENGAGEMENT, PARTNERSHIPS, AND OUTCOMES FROM PLANNING THROUGH IMPLEMENTATION

A Central View of Stakeholder Engagement and Inclusion Efforts

- **BIL, IRA, CHIPS legislation** include key provisions for stakeholder engagement and drives major investments with labor and community requirements.
- **Administration EOs** drive whole-of-government approach/shaping agency implementation.
- **Agency guidance and processes**, such as DOE community benefit planning, shape project deployment and supports implementation.
- **Reporting and accountability processes**, including ongoing jobs and workforce tracking, planning, and analysis, track progress.
 - U.S. Energy and Employment Report
 - 2024 Energy Workforce Needs Assessment.

Identification of successes, gaps, additional implementation support needed.



[EO 14005](#) – Made in America



[EO 14025](#) – Worker Organizing and Empowerment



[EO 14008](#) – Tackling the Climate Crisis at Home and Abroad



[EO 11246](#) – Equal Opportunity Clauses



[EO 14063](#) – Use of Project Labor Agreements for Large-Scale Federal Construction Projects



[Memorandum of Understanding on Global Worker Empowerment](#)

Effective engagement improves project outcomes, mitigates risks, builds public support, speeds deployment.



RETAIN AND BUILD HIGH-QUALITY JOBS ACROSS CLEAN ENERGY SUPPLY CHAINS

Ensure jobs in the U.S. clean energy industry offer competitive wages, safe working conditions, the choice to join a union, and improved access to career pathways and advancement.

Select Programs and Incentives From the CHIPS and Science Act (2022), BIL (2021), and IRA (2022).

CHIPS and Science Act

- Focus on early-career STEM professionals and underrepresented groups
- Targeted assistance for the Office of Science to support early-career researchers:
 - Provisions for individuals from underrepresented groups to attain skills and degrees.
- Mandates all federal research agencies remove and reduce barriers limiting the recruitment, retention, and success of groups historically underrepresented in STEM research careers.

BIL:

- Wage protections to all energy infrastructure provisions (including good benefits and support for local unions)
- Workplace safety protections for transportation system workers
- Subject to Davis-Bacon requirements to ensure construction workers are paid fair prevailing wages
- Subject to the Justice40 Initiative:
 - Funding commitments for investments in communities of color, environmental justice communities, energy communities, communities experiencing poverty and inequality, rural communities, disability communities, Tribal Nations, and U.S. territories.

IRA

- Incentivizes prevailing wages, training, and career pathways by providing increased credits and deduction amounts for companies paying workers the local prevailing wage and hiring a sufficient portion of workers from registered apprenticeship programs
- These provisions apply to most of the credit programs, including:
 - Alternative Fuel Refueling Property Credit
 - Production Tax Credit
 - Credit for Carbon Oxide Sequestration
 - Credit for Production of Clean Hydrogen
 - Clean Fuel Production Credit
 - Investment Tax Credit
 - Advanced Energy Project Credit
 - Energy Efficient Commercial Buildings Deduction
 - New Energy Efficient Home Credit
 - Zero-Emission Nuclear Power Production Credit.

TARGETED FUNDING AND DEPLOYMENT TO SUPPORT COMMUNITY ECONOMIC DEVELOPMENT AND ENHANCE EQUITY

Select Initiatives From IRA (2022)

Encourage opportunities to build voluntary demand for clean energy at the community and individual level.

Program Highlights

- ✓ Saves households money on energy.
- ✓ Dedicates a portion of funds for low- and moderate-income households.
- ✓ Improves homes for better comfort.
- ✓ Reduces indoor and outdoor air pollution.
- ✓ Reduces reliance on fossil fuels.

Figure 7. Impact highlights for Consumer Home Energy Rebate programs

Consumer Home Energy Rebate programs:

- \$8.8 billion to support clean energy and climate change programs across the country:
 - Provides Americans with deep discounts on household upgrade purchases that can lower monthly utility bills.
- Rebates for improving home efficiency and for appliance and home electrification
- Estimated to save up to \$1 billion in energy bills and support over 50,000 U.S. jobs
- Launched by individual states and territories.

Source: U.S. Department of the Treasury (2023)

Target investments to enhance worker and community benefits and support a just transition.

Tax Credits:

- \$115 billion in manufacturing investments for clean energy:
 - Investments in clean energy production, electric vehicles, and batteries are flowing to low-income communities and those that have lost jobs in past energy and industrial transitions.
- Across most major clean energy tax credits, there are stacked credits of:
 - 30% credit for taxpayers paying workers the local prevailing wage and hiring a sufficient portion of workers from registered apprenticeship programs (credit of 6% if taxpayers do not)
 - +10% for projects in disadvantaged communities (DACs)
 - +10% for projects in energy communities.
- Low-Income Communities Bonus Credit program to allocate 1.8 GW of capacity across four categories of solar or wind facilities, including stacked credits highlighted above.



ENSURE EQUITABLE ACCESS TO BENEFITS FROM THE ENERGY TRANSITION

Ensure historically underrepresented populations have equitable access to the benefits of the energy system, including quality jobs and training.

The Justice40 Initiative (2021)

- 40% of the benefits of climate, clean energy, affordable and sustainable housing, clean water, and other investments must flow into DACs.
- Mandated by EO 14008 “Tackling the Climate Crisis at Home and Abroad.”
- DOE’s Office of Energy Justice and Equity has identified eight priority policies for the implementation of Justice40:

- | | |
|--|---------------------------------------|
| 1. Decrease energy burden in DACs. | 7. Increase energy resiliency in DACs |
| 2. Decrease environmental exposure and burdens for DACs | 8. Increase energy democracy in DACs. |
| 3. Increase parity in clean energy technology (e.g., solar, storage) access and adoption in DACs | |
| 4. Increase access to low-cost capital in DACs | |
| 5. Increase clean energy enterprise creation and contracting in DACs | |
| 6. Increase clean energy jobs, job pipeline, and job training for individuals from DACs | |

Source: DOE Office of Energy Justice and Equity (2024)

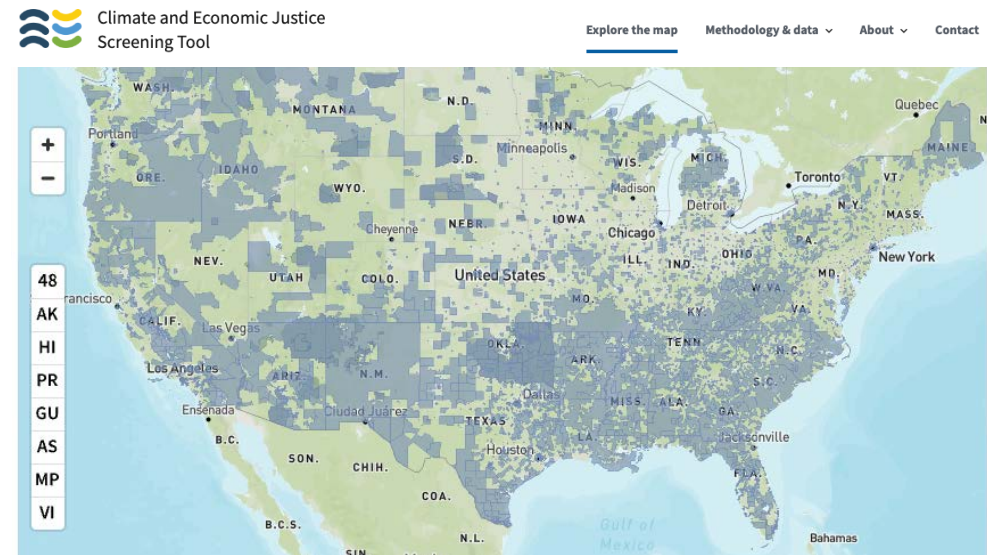


Figure 8. Using census tracts, the Council on Environmental Quality developed the Climate and Economic Justice Screening Tool to help funding recipients understand the burdens experienced by census tracts.

All workforce development and other professional development initiatives stipulated in the BIL and IRA are subject to the Justice40 Initiative.



FACILITATE A JUST ENERGY TRANSITION FOR FOSSIL COMMUNITIES

Facilitate a just energy transition for fossil communities as clean generation project development accelerates.

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

- EO 14008, “Tackling the Climate Crisis at Home and Abroad,” created the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (Energy Communities Interagency Working Group) to execute a place-based approach to revitalize the economies of coal and power plant communities, including the communities and workers most immediately impacted by coal mine and power plant closures.
 - Identifies and coordinates funding and tax credits available to fossil communities and provides avenues and matchmaking for direct technical assistance
 - Organizes Rapid Response Teams that provide technical assistance in communities experiencing a recent or approaching closure of a fossil fuel facility, supported by a dedicated team of experts that also provides other support resources
 - Gathers and distributes data on fossil communities at risk for job loss and assists stakeholders in determining community eligibility for assistance.

Other cross-cutting U.S. government initiatives focused on fossil community transitions include the BIL, IRA, and the Justice40 Initiative.

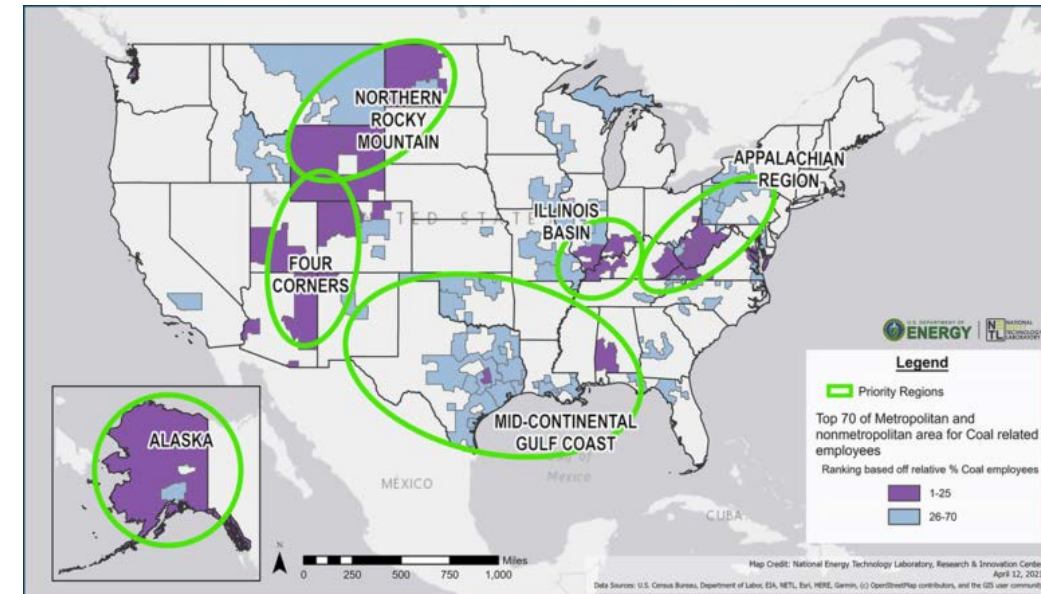


Figure 9. The working group targets metro and non-metro areas that are the most vulnerable to impacts from coal-specific job loss. Priority areas are shown in green.

Source: National Energy Technology Laboratory (2021)



ENSURE BROADLY SHARED PROSPERITY IN THE CLEAN ENERGY TRANSITION

Ensure historically underrepresented populations have equitable access to the benefits of the energy system, including quality jobs and training.

Community Benefits Plans

- DOE requires Community Benefits Plans as part of most BIL and IRA funding.
- Applicants must develop a plan that addresses four core priorities:
 1. Engaging communities and labor
 2. Investing in America’s workers through quality jobs
 3. Advancing diversity, equity, inclusion, and accessibility through recruitment and training
 4. Implementing Justice40, which directs 40% of the overall benefits of certain federal investments to flow to disadvantaged communities.
- Community Benefits Plans are intentionally flexible to generate the best approaches from applicants and their partners. Plans must be specific, actionable, and measurable, and will be part of the contractual obligation of funding recipients.



Figure 10. Four policy principles of Community Benefits Plans

Community Benefits Plans reduce risks, maximize benefits, and improve long-term success of energy projects.



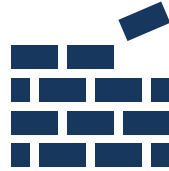
NEXT STEPS

In support of the long-term strategy of the United States, U.S. federal agencies are pursuing the following next steps to accelerate the transition to a decarbonized power system:



Planning

- Update and refine long-term planning studies as conditions change (e.g., cost trajectories, commercialized technologies, policy environment, etc.)
- Continue to establish robust coordination mechanisms among federal government agencies as needed (e.g., Joint Office of Energy and Transportation)
- Develop Community Benefit Plans for clean energy programs and investments.



Building

- Implement programs and effectively disperse funding allocated by BIL, IRA, and CHIPS Acts
- Streamline permitting process to accelerate the buildout of clean energy infrastructure
- Continue work to build robust supply chains for critical minerals.



Operating

- Continue to support international collaboration efforts among system operators
- Roll out advanced metering infrastructure and work with utilities to enable flexible loads
- Implement energy efficiency codes and standards to streamline grid integration
- To continue to establish state and Tribal grid resilience grant formula programs in the United States.



Stakeholder Engagement

- Align policies and programs with Justice40 implementation guidance
- Implement investments and incentives to create, retain, and ensure inclusive access to good jobs and high-quality career pathways in the energy transition
- Provide clear guidance and resources to underrepresented communities looking to obtain access to incentives.

This Action Plan is focused on a current subset of U.S. federal initiatives and does not represent the full scope and depth of U.S. power sector decarbonization priorities. To read the *On the Path to 100% Clean Electricity* report, visit:

<https://www.energy.gov/policy/articles/path-100-clean-electricity>.



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United States

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