



# CARBON CAPTURE COALITION

## 2021-2022 Federal Policy Blueprint

### Topline Summary

**Members of the Carbon Capture Coalition (the Coalition) work together to achieve a common goal: economywide deployment of carbon capture, removal, transport, utilization and storage** to reduce carbon emissions to meet midcentury climate goals, foster domestic energy and industrial production, and support a high-wage jobs base. The *Federal Policy Blueprint* outlines a comprehensive and ambitious federal policy agenda to realize economywide carbon capture deployment and serves as a roadmap for Coalition engagement with federal policymakers. Building upon the Coalition's 2019 [Federal Policy Blueprint](#) released during the 116th Congress, enacting the expanded policy agenda described in the Blueprint will accelerate deployment and commercialization of carbon capture across economic sectors and regions of the country.

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#### **Maximize the Impact of 45Q on Project Development**

- **Enact a 45Q Direct Pay Mechanism:** Providing a direct pay mechanism for 45Q is the most important next step Congress and the administration can take to deliver the jobs, economic and emissions reduction benefits sought by Congress in the bipartisan 2018 FUTURE Act that reformed and expanded the tax credit. Direct pay is a more cost-effective and efficient way of incentivizing carbon capture projects that, dollar-for-dollar, will unlock broader financial markets resulting in more deployment of carbon capture, direct air capture, and carbon utilization technologies.
- **Multiyear Extension of the 45Q Commence-Construction Window:** A significant multiyear extension of the 45Q commence construction window is necessary to provide the long-term certainty for private investment in commercial deployment to reach economywide deployment by midcentury. More complex and capital-intensive carbon capture projects can have lead times of several years before beginning construction, meaning that some potential projects starting today already risk missing the newly extended commence-construction deadline at the end of 2025.
- **Eliminate Annual Thresholds in 45Q Statute:** Since the reform and expansion of 45Q, it has become clear that current eligibility thresholds, based on annual capture or utilization rates, stifle innovation and severely limit the number of facilities and industries able to participate. This, in turn, reduces the overall emissions reduction potential of the 45Q program. These thresholds remain barriers to innovation and project development and should be eliminated by federal policymakers.

#### **Further Enhancements to 45Q to Fill Remaining Cost Gaps**

- **Differentiated Credit Values for Higher-Cost Technologies:** As currently designed, very little carbon capture deployment will occur in certain sectors due to greater costs of capturing CO<sub>2</sub> and commercial risk, jeopardizing the ability to reach net-zero emissions economywide. Policymakers should provide for differentiated credit values under 45Q, recognizing and accommodating the significantly higher costs of capturing and managing carbon emissions from various sectors. Providing differentiated credit values for some industrial, power plant flue gas streams and direct air capture will help to adequately incentivize private investment in these sectors.
- **Establish an Alternative Electricity Production Tax Credit Option for Natural Gas Power Generation with Carbon Capture, Utilization and Storage:** The 45Q program awards tax credits for CO<sub>2</sub> captured and stored or utilized on a per-ton basis. Thus, as presently structured, 45Q does not sufficiently incentivize carbon capture deployment in natural gas power generation, which results in

roughly half the CO<sub>2</sub> captured compared to coal power generation. A production tax credit alternative should be provided at the project developer's option that would be allocated based on each megawatt hour of electricity generated and claimed in lieu of the 45Q tax credit.

### **The Federal Role in Facilitating the Buildout of CO<sub>2</sub> Transport and Storage Capacity**

- **Enactment of the SCALE Act:** Building out an interconnected CO<sub>2</sub> transport and storage infrastructure network will play an essential role in achieving net-zero emissions economywide, but the U.S. risks falling behind other countries and has no federal policy to help finance such infrastructure. Thanks to the introduction of the bipartisan **Storing CO<sub>2</sub> and Lowering Emissions Act (SCALE Act)**, Congress has taken an initial step toward addressing this critical need.
  - Modeled after other successful federal infrastructure funding mechanisms, including those for water and transport infrastructure, the SCALE Act would provide low-interest loans and grants to cover a portion of the cost of common carrier CO<sub>2</sub> transport infrastructure development to partner with and enable private-sector investment. Additionally, the SCALE Act would provide cost shares to support the development of large-scale commercial saline geologic storage sites, as well as increased funding for the Environmental Protection Agency (EPA), to support federal and state permitting of saline geologic storage projects.

### **Ensuring Timely Permitting for Saline Geologic Storage Permitting**

- Timely federal and state permitting of saline geologic storage is key to bringing both current carbon capture projects in the development pipeline and future projects to fruition. Currently, securing an EPA Class VI permit for saline geologic storage can take several years. When added to the time required to undertake other project development activities, this timeline puts carbon capture projects at greater risk of missing the beginning construction deadline under 45Q.
- Coalition priorities for ensuring timely permitting of saline geologic storage include:
  - Increase EPA funding, both for federal permitting of Class VI wells and for grants for states to administer their own Class VI permitting programs that implement federal standards;
  - Proactively implement key provisions of the Utilizing Significant Emissions with Innovative Technologies (USE IT Act) and the Energy Act of 2020, which were enacted as part of the fiscal year (FY) 2021 Omnibus. These provisions will encourage federal, state, tribal and stakeholder coordination on the responsible permitting and siting of CO<sub>2</sub> transport and storage infrastructure;
  - Direct federal agencies to identify and characterize suitable geological storage locations on federal lands and to facilitate the permitting of CO<sub>2</sub> storage at such vetted locations.

### **Enhance and Expand Other Existing Federal Incentives to Enable Financing of Carbon Capture, Direct Air Capture and Utilization Projects**

- **Reform Existing Section 48A and 48B Investment Tax Credits:** Enacting reforms to 48A to modify plant heat rate requirements for compatibility with operating carbon capture equipment and providing for direct pay would unlock approximately \$2 billion in currently available funding for retrofits. Additionally, technical fixes and direct pay for the existing 48B ITC would enable carbon capture projects involving industrial gasification to access existing credits.
- **Provide for a Reformed and Expanded Section 48 Investment Tax Credit for Carbon Capture, Carbon Utilization and Direct Air Capture Projects:** Federal policymakers should reform and expand the Section 48 ITC program for new carbon capture projects equal to 30 percent of the value of installed carbon capture equipment, with eligibility as defined under the 45Q program, and placed in service within ten years. This would enable and accelerate deployment of carbon capture from more expensive and hard-to-abate industrial sectors, power generation and direct air capture, and it would be open to all projects eligible for 45Q, including current 48A- and 48B-eligible projects that opt into the

revamped program.

- **Make Carbon Capture and Direct Air Capture Projects Eligible for Tax-Exempt Private Activity Bonds:** Carbon capture projects are currently ineligible for tax-exempt private activity bonds (PABs). Tax-exempt PABs reduce annual debt payments, both by lowering interest rates and extending the repayment period. Making carbon capture eligible for PABs would reduce financing costs, encouraging the development of more carbon capture and direct air capture projects.
- **Prevent the Disallowance of 45Q under the BEAT Tax:** Important potential tax equity investors in carbon capture projects may be subject to disallowance of 45Q tax credits under the Base Erosion and Anti-Abuse Tax (BEAT), which lowers the threshold that triggers taxation of multinational companies. Business tax credits such as 45Q can be applied to offset up to 80 percent of a company's BEAT obligation. However, this provision applies only through 2025, and the Coalition supports this additional permanent fix, which investors claiming the wind production tax credit and solar ITC already enjoy.
- **Make Carbon Capture Projects Eligible for Master Limited Partnerships:** Carbon capture projects are currently ineligible for master limited partnerships (MLPs), which are a business structure that allows for raising equity on public markets, while providing the tax benefits of a partnership. Carbon capture projects should be allowed to qualify for MLP status to raise equity on more favorable terms.

### **Technology Deployment & Cost Reductions**

- Historically, carbon management technologies have suffered from a significant lack of federal investment compared to that of other clean energy technologies. Robust federal investment in carbon capture technology research, development and demonstration (RD&D) across sectors is imperative to scaling up these technologies to realize meaningful commercial deployment in the marketplace.
- Fully funding the authorized levels for carbon capture contained in the recently-enacted FY 2021 Omnibus would represent a significant course correction in federal investment, resulting in over a 400 percent increase to currently appropriated carbon capture RD&D budgets. Federal policymakers should fully fund these authorizations for commercial demonstrations, front-end engineering and design studies, large scale pilots and R&D for carbon capture technologies through the appropriations process or as part of a broader COVID-19 economic recovery package.

### **Jobs, Economic Development & Affected Communities**

- Jobs associated with carbon capture retrofits, direct air capture facilities and associated CO<sub>2</sub> transport, utilization and storage projects, lend themselves to labor forces and skillsets in oil and gas, mining, and key industrial and manufacturing sectors. Additionally, deployment of carbon capture enables continued operation of industrial, manufacturing and energy facilities, thereby avoiding plant closures and the offshoring of jobs and livelihoods.
  - To aid in the creation of these jobs and help local residents to qualify for them, policymakers should leverage existing federal apprenticeship and workforce training programs to expand support for jobs training undertaken in partnership with community colleges, trade unions and other local institutions in affected communities.
- The communities that are most vulnerable to climate change also typically suffer the greatest impact from criteria air and other pollutants from nearby industrial and power facilities; addressing climate change using carbon capture has the potential to play a role in addressing both.
  - To better assist and understand issues faced by these communities, the administration should direct EPA and the Department of Energy to coordinate an interagency study to assess and quantify potential benefits and risks to local criteria air and other pollutants from carbon capture retrofits at industrial and power facilities across different technologies and industry sectors.