



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

BlueGreen Alliance

Ben Beachy, Vice President for Manufacturing and Industrial Policy

1020 19th St., NW | Suite 750

Washington, DC 20036

bbeachy@bluegreenalliance.org

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IRS-2022-0047: Response to the Department of the Treasury & Internal Revenue Service's Request for Comments on Energy Security Tax Credits for Manufacturing Under Sections 48C and 45X

The BlueGreen Alliance unites labor unions and environmental organizations to solve today's environmental challenges in ways that create and maintain quality jobs and build a stronger, fairer economy. Our partnership is firm in its belief that Americans don't have to choose between a good job and a clean environment—we can and must have both.

We appreciate the opportunity to provide input to shape the implementation of the energy security tax credits for manufacturing established by the Inflation Reduction Act. These tax credits present a once-in-a-generation opportunity to dramatically reduce greenhouse emissions, as well as toxic air, water, and land pollution, while providing good union jobs in the clean economy and driving growth in U.S. manufacturing.

With strong implementation, these provisions will help build a reliable and equitable U.S. supply chain for the clean economy instead of depending on production overseas that is often marred by labor abuses, higher levels of pollution, and shipping bottlenecks. These investments are essential not only to achieve our climate goals, but also to counter the racial and economic inequality fed by manufacturing job losses. They could be a game-changer for cutting industrial emissions—a leading source of climate and air pollution—while onshoring clean technology manufacturing. The Inflation Reduction Act provides the largest investment in clean manufacturing in decades, offering a historic opportunity to support good union jobs, climate action, and a more just economy.

The 45X and 48C tax credits offer a supply-side push for clean technology manufacturing and reduced industrial emissions, which pairs well with the newly established demand-side pull of the clean vehicle tax credit and the domestic content bonus for the clean energy tax credits. The criteria and definitions for each

of these provisions must be carefully designed to ensure meaningful community and labor engagement; the creation of high-quality jobs, deep reductions in emissions; and greater economic, racial, and environmental equity.

These investments offer win-win potential. By getting the details right, the U.S. can meet its clean energy deployment and climate goals while creating good union jobs, growing domestic manufacturing, supporting public health and environmental justice, and creating a cleaner, stronger, and more equitable economy for all.

To this end, BGA offers the following responses to the Treasury Department and Internal Revenue Service's (IRS) questions on the interpretation and implementation of these provisions.

Section 45X Advanced Manufacturing Production Credit

(1) Section 45X(a)(3)(B)(i) allows a taxpayer to make an election to treat a sale of components by such taxpayer to a related person as made to an unrelated person. Is guidance needed to clarify the meaning of the terms “unrelated person” and “related person”? If so, how should these terms be clarified?

The terms should be clarified such that vertically integrated companies can produce an eligible component for their own use in downstream production and still receive the tax credit for the eligible component even if the final product is not an eligible component. As an example, if a taxpayer produces high-purity aluminum that meets the requirements of the tax credit, it should be able to receive the credit even if the taxpayer opts not to sell the aluminum to another entity and instead further processes the aluminum to create and sell a final product that would not qualify for the tax credit.

(2) Section 45X(d)(4) provides that for purposes of § 45X, a person is treated as having sold an eligible component to an unrelated person if such component is integrated, incorporated, or assembled into another eligible component which is sold to an unrelated person. How should “integrated, incorporated, or assembled” be determined?

The interpretation of this key phrase should honor the clear intent of Congress to incentivize new domestic manufacturing capabilities. The Treasury Department and IRS should establish guidance to prevent taxpayers from claiming the tax credit for components whose manufacturing and supply chains are predominantly located in other countries, even if the final steps of production occur in the United

States.

(6) Section 45X(c)(4) identifies “related offshore wind vessels” as one of the qualifying “wind energy components.”

(a) What should the requirements be for establishing that a vessel is for offshore wind development?

(b) Where it is uncertain how much a vessel will be used for offshore wind, how should such situations be addressed?

All vessels that work on U.S. offshore wind deployment should be consistent with the definitions set forth by the U.S. Coast Guard¹ and the Outer Continental Shelf Lands Act. Treasury should prioritize vessel construction that falls into the following categories in order to qualify for the 45X Advanced Manufacturing Production Credit:

1. Crew Transfer Vessel (CTV): This vessel’s primary function is to transport workers to and from offshore wind turbine construction projects, including operations and maintenance. As defined by the United States Coast Guard, CTV is defined as “less than 100 GRT and inspected under 46 CFR Subchapters “L” or “T”, consisting of hulls that are generally an aluminum, catamaran-type with an average speed of approximately 20 knots. Accommodations include arrangements/seating for up to 36 persons.”
2. Service Operations Vessels (SOV): This vessel has dynamic positioning capabilities, which makes it essential for wind turbine servicing and repair work. An SOV has room for 40 personnel and cranes to transfer equipment on to the platform base. Further, some SOVs have ‘daughter-crafts’ which can ferry workers to different parts of a wind farm for alteration or repair work.
3. Feeder Support Vessel (FSV): This vessel is one of three vessels essential for the construction portion of an offshore wind farm. The FSV has the capability to carry components for a turbine including blades and towers, and can accommodate 50+ personnel.
4. Wind Turbine Installation Vessel (WTIV) and Lift Boats: These vessels provide the majority of the installation and construction services.

¹ United States Coast Guard, Offshore Wind Support Vessel. Available online: <https://www.dco.uscg.mil/OCSNCOE/Renewable-Energy/Support-Vessels/#:~:text=SOVs%20are%20fuel%20efficient%20DP,provide%20accommodations%20for%2040%2B%20personnel>

While operating in shallow waters, the WTIV can elevate itself in order to provide a stable platform for the crane to operate. The cargo deck is equipped to carry turbines, blades, and other necessary equipment.

5. Field Development Vessel (FDV): This vessel is designed to lay cable connecting offshore wind structures to the grid, either via an offshore wind grid or substation, to a land based termination point.

(7) Section 45X(c)(6) identifies “applicable critical minerals,” and includes minimum purity percentages by mass.

(a) How should purity percentages be determined?

(b) Should an independent third party be required to verify the results?

(c) If so, what qualifications should be required of an independent third-party providing such verification?

A statutory purity percentage should be deemed met if the observed purity percentage at an additional decimal point rounds to the statutory percentage (e.g., observed purity levels of 98.5% and above should qualify for a statutory threshold of 99% purity). In general, this application of the purity percentages would help to ensure that domestic manufacturers qualify for the tax credit while still producing minerals and materials that meet the standards needed for most solar, wind, battery, and other clean energy applications.

(8) Is guidance needed regarding the definitions of “converted” and “purified”?

The statute should be interpreted to mean that a taxpayer that produces the downstream “applicable critical mineral” should qualify for the tax credit whether the taxpayer itself “converted” the upstream material or whether it purchased the upstream material from another entity, so long as the upstream material adheres to the requirements of the “converted” clause. For example, if a taxpayer purchases alumina “converted from bauxite to a minimum purity of 99% alumina by mass” and uses it to produce aluminum, the taxpayer should qualify for the tax credit even though the taxpayer purchased the alumina instead of processing the alumina itself.

Qualifying Advanced Energy Project Credit (§ 48C)

(1) Section 48C(c)(1)(A)(i), as amended by the Inflation Reduction Act, includes additional types of equipment and property that may be produced or recycled at

a project that re-equips, expands, or establishes an industrial or manufacturing facility.

(c) What should the Treasury Department and the IRS consider in determining “other advanced energy property designed to reduce greenhouse gas emissions”?

Many cutting-edge, emissions-reducing projects have not been widely adopted in the United States because – until the Bipartisan Infrastructure Law (BIL), the Inflation Reduction Act, and CHIPS and Science Act (CHIPS) are fully implemented – the policies and programs have not been put in place to incentivize and support the kind of investments needed to make them a reality. A major barrier to deep decarbonization and the transformation of heavy industry is the nascent development stage and/or the capital cost of necessary technologies, combined with an inability to spread cost across the supply chain. As such, the federal government must play a critical role in helping deploy and commercialize transformative technologies, as deep pollution reductions require high-risk, near-term investments. BIL, the Inflation Reduction Act, and CHIPS include substantial investment for not only the research and development, but also the commercial deployment that is necessary to bring these kinds of technologies to the forefront.

Indeed, the 48C tax credit is particularly well suited to encourage commercial deployment. In determining “other advanced energy property designed to reduce greenhouse gas emissions,” the Treasury Department and the IRS should work with DOE to apply this provision broadly to cover a range of technologies across an array of sectors, including the production of emissions-reducing technology for the industrial sector. A broad interpretation will help to encourage adoption of new, innovative technologies that result in substantial reductions in toxic and climate pollution as they come online.

(2) Section 48C(c)(1)(A)(ii) adds to the list of eligible projects any project which re-equips an industrial or manufacturing facility with equipment designed to reduce greenhouse gas emissions by at least 20% through the installation of certain systems, including through the installation of energy efficiency and reduction in waste from industrial processes.

(b) Is guidance needed to define “reduction in waste from industrial processes”? If so, how should this be defined?

The Treasury Department and the IRS should allow a broad set of technologies to meet the test of “reduction in waste from industrial processes,” including waste heat recovery for cogeneration. A performance-based, technology-neutral approach should be pursued to allow novel applications, innovations, and technologies to be eligible as they come online.

In addition, the Treasury Department and the IRS should work directly with the U.S. Environmental Protection Agency (EPA), the U.S. Department of Energy (DOE), the Council on Environmental Quality (CEQ), and other relevant federal departments and agencies to define “waste from industrial processes” in broad terms to incorporate not only greenhouse gas (GHG) emissions, but also a full spectrum of priority air, water, and land pollutants and toxic chemicals. This is critical both to incentivize emissions reductions and to facilitate the availability of more and better data on what is released from such facilities. As such, “reductions in waste” should apply to each of the aforementioned categories.

Climate pollution is not the only byproduct of heavy industry that poses an existential threat. Toxic air pollution from U.S. industry spells high cancer risks for a quarter million people who live near industrial facilities.² Decades of environmental injustice mean that predominantly Black neighborhoods bear twice as much cancer risk from industrial air pollution as primarily white neighborhoods. The Treasury Department and the IRS should work with relevant federal offices to structure 48C as a means to drive industrial transformation to confront climate change and the toxic pollution poisoning frontline communities.

(c) Is guidance needed to define baseline criteria, boundary conditions and/or timeframe to determine achievement of the 20% threshold?

A 20% reduction in greenhouse gas (GHG) emissions is a critical first step in meeting the administration’s goal of net-zero emissions economy-wide by 2050. The Treasury Department and the IRS should recognize that the means by which most manufacturing or industrial facilities achieve the first 20% of reductions in GHGs— or other air, water, and land pollutants or toxics—are likely already available to

² Propublica, “Poison in the Air,” November 2, 2021. Available online: <https://www.propublica.org/article/toxmap-poison-in-the-air>

them. Many pathways exist to reduce emissions in the industrial sector including energy efficiency, material efficiency and reuse, fuel and feedstock switching, other process changes, and carbon capture, utilization, and sequestration (CCUS) to name a few.

While new technological innovations are always under development and require significant support on research, development, and deployment (RDD) as well as further direct investment to meet the next 80% of reductions, a demonstrable 20% reduction in greenhouse gas emissions should be regarded as a threshold that is relatively accessible to industry with existing technologies and process changes. Therefore, the timeframe to demonstrate achievement of the 20% threshold should be fast as a general rule. That said, distinctions ought to be considered for the manufacturing processes of certain materials for which emissions are harder to abate.

For instance, steelmaking is generally produced through either the integrated blast furnace (BF)/basic oxygen furnace (BOF) process or the electric arc furnace (EAF) process. These two processes have very different emissions intensities due to differences in facility size (BF/BOF tend to be far larger than EAF) and fuel source (coke and natural gas for BF/BOF versus electricity that could come from any type of generator for EAF). It should also be noted that the embodied energy and carbon in recycled steel scrap are usually not included in the energy and emissions intensities calculation for EAF steel.³ Both steelmaking processes will be needed to meet future demand, but distinctions should be made on exact timeframes based on what is realistically achievable for each process.

Additionally, the Treasury Department and the IRS should not limit the criteria for achieving such reductions to any single method or technology, so long as emissions reductions can be verified. A manufacturing or industrial facility should be allowed the flexibility through a combination of means to achieve the 20% reduction threshold.

(3) What should the Treasury Department and the IRS consider in determining “any other industrial technology designed to reduce greenhouse gas emissions”? Is guidance needed to include eligibility of facilities currently producing industrial materials for use in the construction or alteration of buildings and infrastructure

³ Global Efficiency Intelligence, *How Clean is the U.S. Steel Industry?*, November 2019. Available online: <https://www.globalefficiencyintel.com/us-steel-industry-benchmarking-energy-co2-intensities>

projects (such as concrete, steel, asphalt, and flat glass) that can be retrofitted to produce materials that have substantially lower levels of embodied greenhouse gas emissions?

To implement a synergistic strategy for reducing industrial emissions, the “supply push” of 48C investments should be paired with the “demand pull” of procurement measures like Buy Clean, which seeks to leverage the vast purchasing power of the U.S. government to drive demand for low-emissions construction materials. Specifically, 48C credits for emissions-reducing technology should target, among others, the same essential sectors covered by Buy Clean: concrete, steel, asphalt, and flat glass. By focusing both the 48C tax credits and Buy Clean on the same core materials, the Biden administration can maximize the likelihood that manufacturers take advantage of these incentives to cut emissions in some of our economy’s most emissions-intensive sectors. Further, by using 48C to help domestic manufacturers reduce emissions in the same sectors in which Buy Clean rewards low-emissions materials, the administration can help ensure that Buy Clean supports the retention and creation of good U.S. manufacturing jobs.

In determining “any other industrial technology designed to reduce greenhouse gas emissions,” the Treasury Department and the IRS should work with DOE to apply this provision broadly to cover a range of technologies. A broad interpretation will help to encourage adoption of new, innovative technologies that result in substantial reductions in toxic and climate pollution as they come online.

Facility eligibility also should be interpreted in broad terms by the Treasury Department and the IRS. In addition to facility retrofits, facility replacements also should qualify if they meet the emissions reduction threshold, as should the reopening of previously closed facilities, provided that such replacements or reopenings prioritize worker retention and do not result in facility relocation (which undercuts worker retention). In particular, a facility should not qualify for the credit if it closes a unionized facility and opens a new facility in a right-to-work state.

(4) How should a qualifying advanced energy project substantiate its eligibility based on any of the available criteria, but particularly the criteria provided by § 13501 of the Inflation Reduction Act?

(a) Are there industry guidelines currently in place that a taxpayer may use to demonstrate that a project reduces greenhouse gas or other pollutant emissions? If so, what guidelines?

(b) Are there existing industry guidelines or regulatory practices employed by local governments or states that a taxpayer may use to demonstrate that a project reduces greenhouse gas or other pollutant emissions, including submittal of environmental product declarations (EPDs) that include measurements of the embodied greenhouse gas emissions of the relevant material or product and conform with international standards?

In California—and eventually Colorado and Oregon—contractors that want to bid for public projects are required under Buy Clean to obtain environmental product declarations (EPDs) for the products and materials that would be used in those projects.^{4,5,6}

EPDs, which are typically valid for five years, are often referred to as a “nutrition label” for construction materials. These declarations follow international standards and are third-party verified. Type III EPDs follow standards set by the International Standards Organization (ISO) and can be verified by a range of independent parties instead of relying on self-declarations like other ISO environmental labels.⁷ This verification process must adhere to the international standards guiding life cycle assessment (ISO 14040 and ISO 14044) and the development of EPDs (ISO 14025 and 21930), and follow Product Category Rules (PCR) developed for each type of product.⁸ These PCRs are developed by EPD program operators (e.g. ASTM, NSF, UL Environmental, SCS Global Services) following ISO 14027 in a process that is open and collaborative, involving a variety of stakeholders and public comment periods.⁹

The key part of an EPD is the life cycle assessment (LCA) that is calculated for the product, which aims to quantify the environmental impact of a product throughout its life cycle. The primary stages of an LCA include product (expressed as A1-A3),

⁴ California Department of General Services Procurement Division, Buy Clean California Act. Available online: <https://www.dgs.ca.gov/PD/Resources/Page-Content/Procurement-Division-Resources-List-Folder/Buy-Clean-California-Act>

⁵ Colorado General Assembly, Global Warming Potential For Public Project Materials. Available online: <http://leg.colorado.gov/bills/HB21-1303>

⁶ Oregon Legislature, HB4139. Available online: <https://olis.oregonlegislature.gov/liz/2022R1/Measures/Overview/HB4139>

⁷ International Standards Organization, *Environmental Labels*. Available online: <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100323.pdf>

⁸ Carbon Leadership Forum, *Guidance on Embodied Carbon Disclosure*. Available online: <https://carbonleadershipforum.org/guidance-on-embodied-carbon-disclosure/>

⁹ UL, Product Category Rules. Available online: <https://www.ul.com/services/product-category-rules-pcrs>

construction (A4-A5), use (B), end-of-life (C), and beyond the life cycle (D). Currently, EPDs are required to include the cradle-to-gate emissions or the A1-A3 stages at a minimum, which includes extraction and upstream processing of materials, transportation, and manufacturing. For example, an EPD for a piece of rebar might quantify the impact from the mining of iron ore or the processing of recycled steel, turning that raw material into steel, transporting it to fabrication shops, and fabricating products.

EPDs report GHG emissions over a product's lifecycle as global warming potential expressed as carbon dioxide equivalents (CO₂e). Global warming potential is not the only environmental impact reported in an EPD. These declarations also typically quantify additional environmental impacts calculated through a life cycle assessment, including acidification, eutrophication (e.g. algal blooms), ozone depletion, and smog formation. In addition to quantifying environmental impacts, EPDs might also include information on the manufacturer obtaining the EPD and its manufacturing processes.

Cradle-to-gate emissions are well suited for Buy Clean laws because the stages from raw material extraction to when the product leaves the manufacturing facility are typically the largest source of emissions and therefore present the largest opportunity for investment in clean technologies and processes. The goal of any Buy Clean policy is to provide an incentive for manufacturers to invest in cleaner technologies and processes to reduce the emissions intensity of their operations. As a result, it makes sense to focus on the emissions that manufacturers have control over.

For these reasons, BGA has advocated for Buy Clean to use Type-III product-specific EPDs that report facility-specific and supply-chain specific data for production processes that contribute to 80% or more of a product's cradle-to-gate global warming potential and report the overall percentage of supply-chain specific data. This ensures accurate reporting because end-stage fabricators or manufacturers cannot substitute industry averages for a product's carbon footprint.

While EPDs offer an overall useful tool for policies like Buy Clean that assess emissions throughout the supply chain, they have limitations, particularly for assessing the specific emissions reductions from one particular intervention at one stage of the production process, as the 48C tax credit aims to do. EPDs by themselves may not be able to provide direct insight into which technology is responsible for reductions in emissions and pollutants, only that reductions have occurred at a certain stage (e.g. reductions from raw material extraction). In

addition, EPDs represent a snapshot in time and as noted above, are valid for several years. As such, direct comparisons between two Type III EPDs for the same facility with X years between their publishing may only provide limited data. Notably, embodied emissions also may vary depending on the percentage of capacity at which a facility is running at a given time.

In addition, the environmental performance indicators in EPDs do not include the environmental health hazards to workers, fence line communities, or product users from the chemicals used or disposed during a product's formulation or found in the product itself. NSF, the international provider of certification, testing, and auditing to public health standards, now includes this disclaimer in their EPDs:

EPDs rely on Life Cycle Assessmentsand.....LCAs do not typically address the site specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to assess these impacts.

More work needs to be done to ensure health and environmental impacts beyond GHG emissions, including a full spectrum of priority air and water pollutants and toxic chemicals, can be incorporated into Buy Clean and other policies aimed at reducing industrial emissions. Product Category Rules should be added to EPDs to address environmental justice and health concerns. Tools such as the Health Product Declaration, the Declare Label, Chemical Footprints, and the EPA's Environmental Justice Screen could be paired with EPDs to provide a more robust understanding of the impacts industrial processes have on the health of workers, fence line communities, and consumers. This can provide the information necessary to not only help in driving industry towards net-zero, but also to protect the health of manufacturing workers and the communities where industrial facilities are located, which are disproportionately low-income and communities of color.

Given the advantages and limitations of EPDs, we recommend that the Treasury Department and DOE assess the appropriateness of EPDs alongside other options, including facility-wide emissions calculations, in measuring the emissions reduction impacts of industrial projects seeking to qualify for the 48C tax credit. Concurrently, BGA supports efforts to bring experts together to identify gaps in what EPDs can currently capture, and work towards methods that can fill those gaps.

(5) Section 48C(e) directs the Secretary to establish a program to consider and award certifications of qualified investments eligible for the § 48C credit.

(a) What should the Treasury Department and the IRS consider in determining the selection criteria for awarding the § 48C credit and to what extent should the Treasury Department and the IRS rely on precedent from previous experience administering the § 48C credit during previous allocation rounds provided in Notice 2009-72, 2009-37 I.R.B. 325 and Notice 2013-12, 2013-10 I.R.B. 543?

In earlier award cycles, the Treasury Department consulted with DOE in selecting awardees for the 48C credit. We encourage the Treasury Department to issue guidance on how they intend to work with DOE during this round of funding.

We also encourage the Treasury Department and DOE to prioritize awards that reflect the value-added role of the 48C program as part of a holistic industrial strategy. We urge DOE, the Treasury Department, and other relevant agencies and offices to publicly outline such a strategy after incorporating stakeholder input, building on DOE's Industrial Decarbonization Roadmap. This holistic industrial strategy should specify the comparative advantage of the various Inflation Reduction Act, BIL, and other federal funding streams and incentives for achieving the goals of reduced industrial emissions and expanded clean technology manufacturing. This strategy should explain how Inflation Reduction Act and BIL programs complement each other in achieving an array of objectives. For example, these objectives could include broadly deploying existing technologies; launching transformative, first-at-scale technologies; offsetting manufacturers' capital expenses; lowering manufacturers' operating costs; incentivizing the construction of new facilities; sustaining the operations of existing, at-risk facilities; reducing industrial emissions; expanding manufacturing of clean technologies; and more.

Across such dimensions, this industrial strategy should name the particular priorities of the various industrial programs in Inflation Reduction Act, BIL, and other federal policies, including: the 48C tax credit, the 45X tax credit, the domestic content bonus for the clean energy tax credits in the Inflation Reduction Act, the Advanced Industrial Facilities Deployment Program in the Inflation Reduction Act, the Industrial Emissions Demonstration Projects in BIL, the Defense Production Act, and the clean procurement funding in the Inflation Reduction Act for the General Services Administration, Federal Highway Administration, and EPA. Awards under the 48C program, like all other listed programs, should support the program's value-added role as part of this whole-of-government industrial strategy.

We also encourage the inclusion of specific labor, equity, and environmental criteria for 48C awards. In addition to the statutory requirements for selection criteria

established in 26 USC § 48C(d)(3), previous allocation rounds for the 48C credit have considered additional factors, such as geography, diversity of technology, regional economic development, and project size. We recommend additional factors be given significant weight as selection criteria for this funding round, as detailed below, including:

1. Equipping labor unions, community-based organizations, Tribes, disadvantaged communities, and other stakeholders impacted by a project with the tools and resources to engage early and meaningfully in the design of the project;
2. Demonstrating active support from these impacted stakeholders for the project;
3. Requiring or incentivizing applicants to use community benefit/community workforce agreements that increase economic opportunities for communities and local workers—especially for people of color and low-income communities;
4. Requiring or incentivizing manufacturing companies to submit or demonstrate a business plan based on high wages, benefits, and working conditions, along with a plan for monitoring and accountability, and requiring construction contractors or subcontractors to abide by the high-road labor standards outlined below (prevailing wages, Project Labor Agreements, registered apprenticeship programs, and pre-apprenticeship programs);
5. Ensuring implementation of Justice40 through program guidance, technical assistance, and reporting requirements;
6. Targeting investments to hard-hit communities, with a focus on low-income communities, communities of color, and communities facing deindustrialization, environmental injustice, or energy transition;
7. Favoring applicants who utilize hiring and procurement policies that benefit low-income communities, people of color, women, and formerly incarcerated people;
8. Ensuring investments are in line with the scale of change needed to meet global climate targets by prioritizing projects that will result in the greatest decrease in greenhouse gas emissions; and
9. Prioritizing projects that maximize reductions in air, water, and land pollution and toxic substances that could impair the health of workers and communities, with a particular focus on environmental justice communities.

These criteria serve several overarching goals: ensuring community and labor engagement in project selection and design; promoting high-road labor standards to create and support quality jobs; advancing economic, racial, and environmental

justice; and maximizing emissions reductions. Below we offer further details on how project selection criteria can support these goals.

Community and Labor Engagement

Communities often already have a clear vision for economic development goals, but are marginalized and deprived of resources that would enable them to lead implementation of those plans, build the financial resources necessary to start and sustain community-wide efforts, or attract expertise and resources needed to champion efforts and successfully navigate complex and politically-charged environments. DOE should provide technical assistance and financial support for groups seeking to attract 48C funding to their communities, and should provide points of contact that can advise businesses that apply for this program on procedures, deadlines, and implementation requirements. With respect to the \$4 billion in 48C credits that the Inflation Reduction Act set aside for communities facing recent closures of coal mines or coal-fired power plants, the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (IWG) offers some infrastructure for offering technical assistance. With additional resources, the IWG could be the one-stop-shop for businesses and organizations in coal communities to receive technical assistance.

Prioritizing public input and community and labor participation is key in determining which projects are chosen and how they are implemented. With community buy-in, these sites can create long-term, permanent jobs and help diversify the economies of communities. The RECLAIM Act (H.R.1733/S.1455, 117th Congress) offers a potential model to follow. The bill requires local stakeholder collaboration in development of goals and planning.

DOE should particularly prioritize early consultation with workers and fence line communities to ensure that the manufacturing facilities benefiting from this program support their environmental, health, and economic needs. It is imperative that DOE incorporate input from Tribes, communities of color, low-income communities, labor unions, and communities that have suffered from deindustrialization, energy transition, and environmental injustice into the selection and design of projects. In particular, community-based organizations' (CBO) input should be sought on matters regarding local hire; labor unions should be consulted on training opportunities and all of the labor standards outlined below; and disadvantaged communities, Tribes, and CBOs should be engaged to ensure that the goals of Justice40 are fulfilled.

The 48C program should require or incentivize the use of Community Workforce Agreements (CWA) and Community Benefit Agreements (CBA) as a clear means of ensuring meaningful community and worker engagement in projects. A CWA reflects a common pledge between labor and the community to work together to build a high-road path to economic revitalization that includes good jobs. CWAs frequently include local hire provisions, targeted hire of low-income or disadvantaged workers, and the creation of pre-apprenticeship pathways for careers on the project. A CBA typically includes more than economic benefits and utilizes a community input process to develop an agreement with the community for a broader array of benefits (i.e., housing or transportation priorities).

It is also important to link projects funded by the 48C credit to community-driven economic development efforts to ensure that the projects actually meet the needs of the community. For coal communities, the IWG could again play a role in helping communities build on existing efforts by connecting them to other complementary programs at DOE and other key agencies, such as the Economic Development Administration (EDA), Appalachian Regional Commission (ARC), and the U.S. Department of Agriculture (USDA).

Quality Jobs

We recommend that DOE include the following high-road labor standards as selection criteria for the 48C credit. These standards primarily apply to jobs in the construction sector, unless otherwise noted:

- **Prevailing wage:** Projects should require all construction contractors and subcontractors to comply with the Davis-Bacon Act and Related Acts (DBRA). Contractors and subcontractors shall therefore agree that all employees shall be paid the local prevailing wages and receive accompanying benefits as identified under DBRA in the construction of projects funded by this program.
- **Project Labor Agreements (PLA):** Large construction projects, not subject to Executive Order 14063 requiring the use of PLAs for Federal Construction Projects over \$35 million, can still benefit from a PLA. PLAs control the terms and conditions of employment of workers on specific construction projects, including wages, hours, working conditions, and dispute resolution methods. These agreements can be utilized at the state and local level to ensure high-road labor standards, a qualified workforce, and timely projects.
- **Registered apprenticeship programs and labor-management partnerships:** One of the main mechanisms for building career pathways is through registered apprenticeship, pre-apprenticeship, and other union-affiliated

training programs. Apprenticeships are registered through a state apprenticeship agency or through the U.S. Department of Labor. Registered apprenticeships are paid positions that combine on-the-job training with classroom instruction in a trade. Construction unions operate robust registered apprenticeship programs while industrial unions work with employers on joint labor-management training programs that also provide a combination of classroom and on-the-job skills training. Additionally, many unions offer training throughout a member's career to enable them to stay up to date with changes in technology.

- Pre-apprenticeship programs: Pre-apprenticeship programs have become a key tool for improving equitable access to jobs in the building trades. Such programs aim to ensure that workers can qualify for entry into an apprenticeship program and have the skills and support they need to succeed. These programs are generally designed to support certain populations or demographics such as low-income workers, workers of color, women, and other marginalized communities. The most successful pre-apprenticeship programs are those affiliated with registered apprenticeships or other contractually agreed on-the-job training programs. Wraparound services such as transportation and childcare also help with recruitment and retention of underrepresented and disadvantaged workers.

DOE also should consider additional high-road labor standards, such as: union neutrality, high-road wages and benefits, occupational health and safety standards and programs, avoidance of misclassification, and avoidance of excess use of contracted or temporary employees.

Economic, Racial, and Environmental Justice

Projects should be prioritized in low-income communities, communities of color, and communities enduring deindustrialization, energy transition, or environmental injustice, so long as these communities actively support the projects. We offer the following guidance in defining these communities:

- Environmental justice communities: Government tools such as the CEQ screening tool, DOE mapping tool, and/or state-specific environmental justice screening tools should be used to help identify environmental justice and other disadvantaged communities where the project benefits should be concentrated. The 48C credit should support implementation of Justice40 through program guidance, technical assistance, and reporting requirements.
- Energy communities: We welcome the Inflation Reduction Act's set-aside of \$4 billion of 48C tax credits for projects located in communities facing recent

closures of coal mines and coal-fired electric units. To ensure these targeted investments adequately address the needs of coal communities, a coal mine should be considered “closed” once it has begun the reclamation process or has ceased operations and not produced coal in the previous two years. A coal-fired electric unit should be considered “retired” after December 31, 2009, if the unit is listed as “retired” after that date in the EIA-860 data provided by the Energy Information Administration. Over the lifespan of the tax credit, census tracts should also become eligible once a currently operational unit retires. Such units should be considered “retired” once an approval to deactivate is granted by a state public utility commission, Regional Transmission Organization, or Independent System Operator. For details, please see our comments regarding the Inflation Reduction Act’s energy communities requirements.

Projects also should demonstrate how the proposed program will offer disadvantaged workers improved access to career opportunities in manufacturing. This may include:

- Requiring or incentivizing local or targeted hire or other hiring and procurement policies that benefit low-income communities, people of color, women, and formerly incarcerated people in disadvantaged communities, as identified by CEQ’s screening tool or DOE’s mapping tool;
- Requiring or incentivizing community benefit/community workforce agreements that increase economic opportunities for communities and local workers—especially for people of color and low-income communities;
- Creating a community task force to monitor and enforce a local hire provision or CWA/CBA;
- Requiring or incentivizing pre-apprenticeship opportunities that are linked to registered apprenticeship programs and that target disadvantaged communities;
- Integrating training programs with community-based “wrap around” services to maximize retention of disadvantaged and underrepresented workers as they enter careers (e.g., child care services and transportation);
- Omitting or limiting drug testing or background checks; and
- Identifying existing community networks for recruitment of disadvantaged workers.

Reduced Emissions

Projects should be evaluated and selected based on their contribution to reduced or avoided emissions, as stipulated by the 48C statute. Congress enhanced the tax

credit in the Inflation Reduction Act by making clear that eligible projects include those that reduce greenhouse gas emissions at industrial facilities by at least 20%. The Treasury Department and DOE should devote a significant share of 48C funding to projects that achieve this purpose, while continuing to fund projects that manufacture a range of clean technologies. To maximize the impact of the finite supply of 48C credits, investments in emissions-reducing retrofits at industrial facilities should focus on the most energy-intensive manufacturing sectors, including cement, iron and steel, paper, chemicals, glass, and aluminum. Given that union density is relatively high in each of these manufacturing sectors, this sectoral focus would also tend to support the goal of creating and retaining quality jobs.

The Treasury Department and DOE should prioritize projects based not only on their potential to abate greenhouse gas emissions, but also other harmful emissions, as indicated in the statute. Specifically, projects should be evaluated and selected based on their potential to avoid or reduce air, water, and land pollution—particularly pollution that would impact or has impacted environmental justice and other fence line communities. In addition, priority should be given to projects that avoid or reduce exposure to toxic substances that threaten worker safety and community health.

(6) Section 48C(e)(3)(C) provides, in part, that if any certification is revoked, the amount of the limitation under § 48C(e)(2) must be increased by the amount of the credit with respect to such revocation.

(a) Is guidance needed on revocation of certifications? If so, what guidance?

A certification should be revoked if a company outsources the qualifying advanced energy project to another country, in accordance with Section 48C(e)(3)(d). Beyond the revocation of the certification, if a company receives the tax credit and then moves the operations for which they received government support abroad within a reasonable amount of time, they should be required to pay back the government subsidy. This “clawback” treatment is needed to help deter outsourcing of clean manufacturing facilities to countries with lower labor and environmental standards, where advanced energy goods are often made with labor abuses and high pollution. In instances where outsourcing occurs anyway, such a clawback protocol could enable taxpayers to recoup the public investments so that they can be reallocated to other clean manufacturing projects.