

## 48(c) Industrial GHG Emissions Reduction Primer

### Details of New Legislation

The Advanced Energy Program under Section 48C of the Internal Revenue Code has been revived via subsection (e), expanding the scope of eligible activities. This federal tax credit program now covers a much broader range of areas for the development of clean energy, advanced battery manufacturing, and other innovative energy sectors. The program has allocated a total of \$10 billion in credits for qualifying investments in advanced energy projects. The IRS released initial program guidance via Notice 2023-18, and subsequent guidance via Notice 2023-44.

This alert focuses on projects which may qualify under the **Greenhouse Gas (“GHG”) Emission Reduction Projects** category.

***The Department of Energy (“DOE”) will place a priority on projects which DEEPLY REDUCE EMISSIONS to levels significantly below a reasonable domestic industry average of 20% OR MORE.***

### BASIC TIMING FOR GHG APPLICATIONS

- EXCHANGE Portal opens by June 30, 2023. Concept Papers due July 31, 2023, by 12:00 PM (ET).
- Following submission of a Concept Paper, DOE will provide a letter encouraging or discouraging the taxpayer’s submission of a full application.
- DOE begins the acceptance process for a taxpayer’s application seven days after the date of the letter of encouragement or discouragement and must be submitted within 45 days.
- IRS will make all Round 1 allocation decisions by March 31, 2024.

### GHG PROJECT ELIGIBILITY

A qualifying advanced energy project **re-equips an industrial or manufacturing facility**, with a focus on energy-intensive manufacturing sectors, such as cement, iron and steel, aluminum, chemicals, and other sectors, with **equipment designed to reduce greenhouse gas emissions by at least 20%** through the installation of one of more of the following:

- 1) Low or zero-carbon process heat systems. Examples include electric heat pumps, combined heat and power (CHP) systems, thermal storage technologies, and other heating systems based on electricity, clean hydrogen, biomass, or waste heat recovery.
- 2) Carbon capture, transport, utilization, and storage systems. Examples of eligible equipment include carbon capture equipment necessary to compress, treat, process, liquefy, pump, or perform some other physical action to capture carbon oxides, and specialized equipment and materials needed for the transport and storage of carbon oxides, including carbon dioxide pipelines, monitoring

equipment, and injection equipment and well components such as packers, casing strings, CO<sub>2</sub>-resistant cement, steel tubulars, well heads, valves, and sensors suitable for use in Underground Injection Control Class VI wells. Additional examples include equipment to convert carbon oxides through mineralization, thermochemical, electrochemical, photochemical, plasma-assisted, or other catalytic process approaches to carbon-based products such as synthetic fuels, chemicals, solid carbon products, and inorganic materials.

Examples of *ineligible* property under this category include scrubbers for conventional air pollutants, with the exception for scrubbers that are required to remove pollutants upstream of carbon capture equipment for technical performance reasons; energy generation equipment, except as related to energy recovery at carbon capture systems; and refining equipment.

- 3) Energy efficiency and reduction in waste from industrial processes. Examples include technologies that reduce direct fuel use, electricity use, or waste in industrial applications, such as industrial heat pumps, CHP systems, insulation, sensors, controls, advanced recycling approaches, smart energy management, and similar advanced efficiency technologies.
- 4) Any other industrial technology designed to reduce greenhouse gas emissions, as determined by the Secretary. Examples of other eligible industrial technologies include electrification of direct fuel use processes, adoption of renewable or low-emissions fuels and feedstocks, and other equipment replacement or process redesigns that reduce process- or fuel related emissions or otherwise contribute to reducing GHG emissions by at least 20 percent.

Projects in this category must involve the installation of equipment designed to achieve a **minimum 20% reduction** in GHG emissions in one or more of the following ways:

- Achieve direct (Scope 1) GHG emissions reduction of 20% facility wide.
- Achieve indirect fuel or energy-related (Scope 2) GHG emissions reduction of 20% facility wide.
- Achieve direct or indirect GHG emissions reduction of 20% at a facility subunit, such as a particular process step or fuel combustion unit. Note that the overall combined Scope 1 and Scope 2 GHG emissions impacts for the full qualifying facility will be considered when evaluating each project for the purposes of application scoring.

## GHG PROJECT QUALIFYING PROPERTY

Eligible property to mean any property that is:

- a) Re-equipping, expanding, or establishing an industrial facility, for the purpose of achieving a GHG emissions reduction outcome,
- b) Tangible personal property, but only if such property is used as an integral part of the qualified investment credit facility, and
- c) Depreciated or amortized.

## GHG 48C CREDIT ALLOWED

The **base credit is 6%**, however projects may qualify for a 30% credit provided the following requirements are met:

Prevailing Wage: Construction labor is paid at least prevailing rates for construction in the area where the project is located.

Apprenticeship Requirement: Contractors must use qualified apprentices on the qualified project, and they must perform at least the applicable percentage (10 – 15%) of the total hours on the project.

Credits may be transferred or sold to a third party.

## GHG PROJECT EVALUATION CRITERIA

The DOE will only take into consideration only those projects where there is a reasonable expectation of commercial viability.

Further, DOE will prioritize projects which will:

- (1) Provide the **greatest domestic job creation** during the credit period,
- (2) Provide the **greatest net impact to reduce GHG emissions**,
- (3) Have the **greatest potential for technological innovation and commercial deployment**,
- (4) Have the **lowest levelized cost** of generated or stored energy, or of measured reduction in energy consumption or greenhouse gas emission, and
- (5) Have the **shortest project timeline** from certification to completion.

## GHG TECHNICAL REVIEW CRITERIA

DOE will evaluate whether a project merits a recommendation based on the following technical review criteria:

Criterion 1: Commercial Viability

Criterion 2: Greenhouse Gas Emissions Impacts

Criterion 3: Strengthening U.S. Supply Chains and Domestic Manufacturing for a Net-Zero Economy

Criterion 4: Workforce and Community Engagement

Criterion 5: Interrelationship of the four Criteria above

## COMMUNITY ENGAGEMENT REQUIREMENT

A **Community Engagement** proposal is required with all applications. Areas of interest to include the following:

Job Creation and Workforce Continuity: Number of direct and indirect jobs created, partnerships with apprenticeship readiness programs, community-based workforce training organizations, talent recruitment plans and pipelines, the presence of CBA's or other labor-ownership partnership agreements, and commitments to workforce education and training.

Community Engagement: Workforce and community engagement including local governments, identification of local stakeholders, workforce recruitment partners, and activities to strengthen support of the community, and the presence of a Community Benefits Agreement.

Local Environmental Impacts: Considerations relating to the project's impact on local air, water and land quality, and efforts to mitigate pollution and waste.

Energy Community Transition: If applicable, how the project will help former coal-based communities transition into new industrial sectors and clean energy industries.

## MISCELLANEOUS

Property may not be placed into service prior to receiving the Allocation Letter.

No aggregation across different facilities.

Credit may not be claimed for 45X and 48C on the same piece of property.

Limit of one GHG application per facility, and applicants must select the primary technology or project.

Scope 3 emission reductions – i.e., “lifecycle emissions” – are not eligible.

The 20% reduction test may be confined to a sub-unit, such as a particular process step or fuel combustion unit. That said, program language is clear that overall facility GHG reduction will still be considered in the final evaluation.

Public Disclosure: All awardee names will be disclosed including the name of the applicants/taxpayers and the amount of credit allocated. Additional disclosures may be requested; however, awardees have the option to decline without impacting the award decision.

Please contact **Brian Corde at (732) 410-4568 or [bcorde@atlasinsight.com](mailto:bcorde@atlasinsight.com)**  
for help securing every incentive dollar for your project!