



November 4, 2022

The Honorable Janet L. Yellen
Secretary
Department of the Treasury
1500 Pennsylvania Avenue, NW
Washington, DC 20220

The Honorable Charles P. Rettig
Commissioner
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224

RE: Request for comments on Qualifying Advanced Energy Project Credit (§48C) pursuant to Notice 2022-47

Dear Secretary Yellen and Commissioner Rettig,

Thank you for the opportunity to comment on the Qualifying Advanced Energy Credit that was extended and expanded under the Inflation Reduction Act (Public Law 117-169).

With more than 1,100 member companies, the National Asphalt Pavement Association (NAPA) is the only trade association that exclusively represents the interests of the asphalt pavement producer/contractor on the national level with Congress, government agencies, and other trade and business organizations. NAPA's membership also includes companies and individuals that support the asphalt pavement industry, such as construction equipment manufacturers and material suppliers. NAPA members are leaders in implementing sustainable plant and pavement technologies, such as Reclaimed Asphalt Pavements (RAP) and Warm-Mix Asphalt (WMA), that reduce environmental impacts and greenhouse gas emissions.

NAPA has reviewed the provision and questions provided in Notice 2022-47 and provides the following comments.

Is guidance needed to define "energy efficiency"? If so, how should this be defined?

Section 48C as amended by the Inflation Reduction Act (IRA) makes eligible "a project that re-equips an industrial or manufacturing facility with equipment designed to reduce greenhouse gas emissions by at least 20 percent." NAPA supports the performance target in the provision. However, focusing only on equipment limits the scope of what could be accomplished. Guidance should include other energy reduction technologies designed to reduce greenhouse gases (GHG) that fall outside of standard equipment (such as facility infrastructure), which would allow for additional innovative methods to be taken to further reduce GHG emissions. One example of facility infrastructure that is not standard equipment is stockpile coverings. Stockpiling coverings would reduce aggregate moisture which in turn would reduce energy required to produce asphalt mixtures.

There are multiple ways to reduce GHG emissions during asphalt production and manufacturing. Some technologies may need to be used in combination with others to achieve the 20 percent reduction goal. Guidance should consider the fact that there are very few, if any, single technologies that would reduce GHG emissions by 20 percent at an asphalt mix plant.

The asphalt pavement industry will utilize existing proven technologies as well as potential future technologies not yet developed singularly or in combination to meet the target. NAPA recommends guidance that is goal oriented rather than prescriptive to allow the industry to innovate using Section 48C as a catalyst to develop and deploy these technologies.

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

There is extraordinarily little waste generated from asphalt production. NAPA defines waste as the raw materials (aggregates and asphalt) that are consumed in the production of asphalt mixtures that are not ultimately sold for their intended purpose (pavement). Because asphalt pavement is 100 percent recyclable, the industry reuses every input including waste in new mixtures and lab mixes, or by incorporating baghouse fines in asphalt mixtures. Guidance is only needed if “waste” means something different than stated herein.

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

Yes, guidance is needed to define baseline criteria, boundary conditions, and timeframe to determine achievement of the 20 percent reduction goal. Twenty percent reduction targets should be verified through quantification methods such as life cycle assessment using tools that are available to the asphalt pavement industry. These tools may look similar to the Department of Energy’s 45Q Life Cycle Assessment Toolkit. Many plant manufacturers also have tools that quantify life cycle GHG reductions. These tools should not use national baselines to demonstrate reduction, but instead show direct reduction at a single facility using the implemented technologies.

What should the Treasury Department and the IRS consider in determining “any other industrial technology designed to reduce greenhouse gas emissions”?

NAPA recommends a broad interpretation of “any other industrial technology” to ensure all possible technologies are included that will be developed in the future that may not be defined as “equipment.” For example, software and artificial intelligence (AI), which will help automate and optimize operation of asphalt mix facilities, will help achieve the CO₂ emission reduction goals. These types of new technologies should be included if they can demonstrate reductions in GHG emissions.

NAPA also urges guidance that considers technologies not limited to “equipment” related to the plant. Asphalt mix plant owners could adopt other technologies that reduce GHG emissions associated with production, which are not limited to technologies inside of the plant gate. Some examples include:

- installing equipment to use alternative fuels for trucks, which would reduce fuel use on site;
- installing solar panels or wind turbines to provide electricity (for plants and equipment); and

- reducing emissions through improvements or modifications to raw materials, such as asphalt binder.

In addition, guidance is needed to clarify the eligibility of technologies during the application and laydown of asphalt mix. Consideration should be given to electrically powered pavers and rollers, as an example. Another part of the manufacturing process includes asphalt binder technologies and the advancement of additives and process production that reduce greenhouse gas emissions. Guidance clarifying the eligibility of 48C tax credits in these situations would be extremely helpful.

Is guidance needed to include eligibility of facilities currently producing industrial materials for use in the construction or alteration of infrastructure projects (such as asphalt) that can be retrofitted to produce materials that have substantially lower levels of embodied greenhouse gas emissions?

The guidance should focus on the 20 percent reduction target and should not be prescriptive on how the contractor achieves the reduction. However, NAPA recommends the guidance make clear that asphalt manufacturing facilities are eligible for the credit.

According to the Environmental Protection Agency's ECHO database, there are 3,348 'active' asphalt mix plants in the United States. These plants range in age and technological capabilities. To achieve the 20 percent GHG emission reduction target, these plants will have to be upgraded with the latest technologies, which may require a long timeline.

For many plants, updates will take more than a year to be delivered and installed, meaning that updating asphalt mixture production facilities across the country will take significant time to complete. Furthermore, improvements eligible for the 48C tax credit may take more than a year to take effect, which may necessitate consideration of longer timeframes to prove the promised reduction in GHG emissions.

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 IRA? 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?

Eligible projects should substantiate eligibility using quantification methods such as life cycle assessment. Guidelines may look similar to the Department of Energy's 45Q Life Cycle Assessment Toolkit.

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?

Many tools exist today to help quantify reduction of pollution emissions outside of GHG emissions. Many tools use these emissions to calculate the potential environmental impacts that pollution emitted to air, soil, and water have on specific impact categories in common equivalence units. Environmental Product Declarations (EPDs) is one such tool. In the United States, EPDs commonly follow the Tool for Reduction and Assessment of Chemicals and Other Environmental Impacts (TRACI) developed by the Environmental Protection Agency to calculate these impacts. TRACI

includes impact categories such as global warming potential, acidification, eutrophication, and ozone depletion.

Importantly, EPDs use only a limited selection of the TRACI impact categories and may not currently be the most comprehensive source of assessing certain pollution reductions depending on the specific impact of concern. For example, EPD tools currently rely on one year of fuel data and would therefore take at least one year to show the full impacts on changes in fuel usage such as source or amount. Thus, as other pollutants are contemplated, consideration should be given to currently available, simple, and consistent reporting methods.

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

As this is the first time the asphalt pavement industry will be involved in this type of federal tax credit program, it is important to know that the manufacturers of asphalt pavement mixtures range from small family-owned companies with a single plant to large corporations with significant numbers of plants. The best way to deploy innovation through tax incentives is through fair competition in determining the selection criteria and awarding the certificate by ensuring the guidance provided is clear, concise, and easily understood.

Please provide IRS with comments on any other topics that may require guidance.

NAPA recommends specific guidance with respect to when the 48C credit becomes applicable to guide companies on deciding when to invest in re-equipping their facilities. For example, is 48C credit applicable at the time of purchase, at the time of delivery, or at the time of initial usage? Moreover, how should the 48C credit be applied if these dates extend over different years?

NAPA has established a working group focused on this issue. As questions arise and more information may be needed, NAPA stands ready to assist the Department of Treasury and the Internal Revenue Service to implement a program that achieves the stated purpose. Please do not hesitate to reach out to me or Jay Hansen, Executive Vice President – Advocacy, JHansen@AsphaltPavement.org, for additional information.

Thank you in advance for consideration of our comments.

Sincerely,



Audrey Copeland, Ph.D., P.E.
President and CEO