

45Z: A Pathway to Cost-Effective Carbon Reductions

The Clean Fuel Production Tax Credit, or 45Z, provides a tax credit for fuels relative to how low their carbon intensity score (CI) score is against a baseline level. This incentive is critical to scaling new low-carbon fuel projects like sustainable aviation fuel (SAF), light-duty vehicles, heavy duty shipping, marine, biochemicals, and bioplastics. Scaling up these projects will be critical to providing new markets for rural America, supporting American innovation, and decarbonization.

TIMING

Farmers and biofuels producers need enough of a runway to allow for production to scale up and to support capital projects needed to meet the challenges of low-carbon domestic and international energy markets.

ASK Ensure Treasury finalizes 45Z guidance by January 1, 2025, the statutory deadline, and no later.

ASK Extend the 45Z tax credit by seven years (10 years total), until December 31, 2034. Under current law, the 45Z tax credit expires on December 31, 2027.

Soaring Potential

With modeling that accurately accounts for the true greenhouse gas emission reduction potential of ethanol, the 45Z credit could:

- Add \$21B to the U.S. economy
- Support 192,000 new jobs
- Generate \$13.4B in household income
- Provide farmers with a 10% premium price on low carbon corn used at an ethanol plant

CLIMATE SMART AGRICULTURE AND CARBON REDUCTION PATHWAYS

On April 30, 2024, the U.S. Department of Treasury finalized its Sustainable Aviation Fuel Tax Credit, or 40B. For SAF (not on-road fuels), this credit rolls into the 45Z credit from 2025 to 2027. The finalized 40B credit is expected to heavily influence how the 45Z credit — for all fuels — is modeled. We ask for the following edits to 40B as Treasury writes the 45Z guidance:

ASK **Increase flexibility to lower carbon emissions** by including pathways for sorghum (both starch and fiber), corn wet mills, corn kernel fiber ethanol, and other secondary feedstocks like proso millet, barley, and wheat.

ASK **Recognize corn stover for process heat as a carbon-reducing technology** to allow ethanol producers to access available biomass feedstock that can offset natural gas usage at ethanol facilities.

ASK **Expand decarbonization technologies** by including pathways listed in 40B guidance, as well as energy storage, on-site and over-the-fence combined heat and power, mechanical vapor recompression, biomass to heat, advanced yeasts and enzymes, thermal vapor recompression, on-farm energy use reductions, and both biogenic and non-biogenic carbon capture and storage (CCS).

ASK **Unbundle and expand climate-smart agriculture practices** by recognizing more CSA practices and allowing farmers to adopt them individually without a “bundling” requirement, as stated in 40B.

ASK **Include additional low-carbon electricity sources**, such as solar, geothermal, biomass, waste, and hydro.

MODELING

Without using modeling that accurately accounts for the true greenhouse gas emission reduction potential of ethanol, U.S. biofuel producers could be locked out of low-carbon fuel and biomaterials markets.

ASK Ensure U.S.-based tax incentives utilize a U.S.-based lifecycle emissions model such as Argonne National Laboratory’s GREET model.

Additionally, 45Z includes all aviation and non-aviation biofuels and requires different modeling for each. Treasury should follow the clear intent of Congress and use different carbon models for SAF and non-SAF fuels.

ASK For **SAF**, the model used should be the ICAO model or a model “similar” to ICAO that meets the greenhouse gas definition in the RFS (40B GREET).

ASK For **non-SAF**, the model used should be the Argonne GREET model or a “successor” model to Argonne GREET.

