

U.S. Department of Energy 45Z Emissions Value Request Application Submission Instructions

The 45Z Emissions Value Request Application (Application) will be used to collect information from transportation fuel producers seeking to obtain an emissions value from the Department of Energy (DOE) before filing a petition for a provisional emissions rate (PER) with the Secretary of the Treasury for the purpose of claiming the tax credit for producing clean fuel (Internal Revenue Code section 45Z). These instructions describe the information a fuel producer (applicant) must provide to DOE to obtain an emissions value from DOE.

To request an emissions value from DOE for a given type of transportation fuel produced using a particular primary feedstock and pathway not already included in the applicable emissions rate table published by the U.S. Department of Treasury (Treasury), an applicant must provide engineering information/analyses consistent with a front-end engineering and design (FEED) study of the facility based on an Association for the Advancement of Cost Engineering (AACE) Class 3 Cost Estimate.¹ An applicant must then submit to DOE the following documents:

1. Engineering information/analyses consistent with the specified sections of the FEED study, as described below; and
2. A completed Emissions Value Request Form (Form), as described below.

In addition to the required documents, an applicant also has the option to include additional information that may be beneficial in completing lifecycle greenhouse gas emissions analysis of the transportation fuel production pathway described in the Form and FEED study.

Engineering information/analyses consistent with the following sections of the FEED study must be submitted in Microsoft Word or Adobe PDF file formatting:

1. Block flow diagrams of all major processes within the transportation fuel production facility
2. Piping & instrumentation diagrams (P&IDs)
3. Primary feedstock description and intake (per hour)
4. Electricity imports and (if applicable) exports (e.g., MW)
5. Other energy & material mass flows and balances (per hour)
6. Process equipment list
7. Water mass flows and balances (per hour)
8. Chemical composition and balances of process inputs and outputs
9. Steady state emissions data for carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O).
10. Waste stream management summary
11. Physical and chemical properties of process input and output flows as applicable (e.g., purity, pressure, density, enthalpy, lower heating value, carbon content in mass%, etc.)

¹ See, 90 FR 34855 (July 24, 2025).

An applicant must also use information from the identified FEED-study sections to complete the Form, which is available at <https://www.energy.gov/documents/45z-emissions-value-request-form>. The Form contains detailed instructions and example values for the information being requested. The Form requests an applicant provide:

1. Contact information;
2. A process block diagram of the transportation fuel production pathway for the qualified facility² (referred to as the “facility”);
3. Input and output flows expected for the facility;
4. Total annual expected consumption of each feedstock used in production of the transportation fuel by the facility;
5. Source and quantity of electricity expected to be used by the facility and verified by qualifying energy attribute certificates (EACs) consistent with EAC parameters applicable to 45ZCF-GREET under the § 45Z credit;
6. Source and quantity of electricity expected to be used in production of the transportation fuel by the facility without qualifying EACs;
7. Source and quantity of renewable natural gas expected to be used by the facility consistent with the final regulations issued by the IRS or Treasury with respect to section 45V; and
8. Total quantity of the transportation fuel expected to be generated by the facility.

The applicant may submit any additional documents in support of completing an emissions analysis of the facility’s transportation fuel production pathway for which it seeks to obtain an emissions value for purposes of tax credit eligibility. This additional documentation is optional, and the Application will be deemed complete regardless of whether any such additional documentation is provided.

To submit to DOE information necessary to obtain from DOE an emissions value, an applicant must first send an email to 45ZEmissionsRequest@doe.gov stating its intent to submit an application to DOE as well as the name of its organization with the subject line “Intent to Submit Emissions Value Request”. DOE will then send the applicant an email with a link to an online secure file sharing platform, and using that link the applicant must upload its application. If DOE has any follow-up questions regarding the material submitted, DOE will contact the email address provided in the Form. Additionally, DOE may request a site visit, where possible, or similar activities necessary to understand the transportation fuel production facility or the facility’s pathway described in the Application. An applicant is required to respond to follow-up

² Section 45Z(d)(4) defines “qualified facility” to mean:

(A) a facility used for the production of transportation fuels, and

(B) does not include any facility for which one of the following credits is allowed under section 38 for the taxable year:

(i) The credit for production of clean hydrogen under section 45V.

(ii) The credit determined under section 46 to the extent that such credit is attributable to the energy credit determined under section 48 with respect to any specified clean hydrogen production facility for which an election is made under subsection (a)(15) of such section.

(iii) The credit for carbon oxide sequestration under section 45Q.

questions or requests for site visits within 30 days of receipt of the request. Failure to respond in a timely manner may result in DOE denying review of the Application.

After receipt of the Application, DOE's employees and contractors, including personnel at Argonne National Laboratory (ANL), will review the Application for responsiveness and completeness. DOE will decline to review applications that are incomplete (such as those that are missing the required engineering information/analyses, or those wherein mass or energy balances for input flows are inconsistent with reported output flows) or nonresponsive. Nonresponsive applications include those for which DOE review and/or issuance of an emissions value could be unnecessary or misleading given significant outstanding questions regarding how life cycle analysis considerations of the pathway will be addressed in final Treasury 45Z regulations, and/or inconsistency of the pathway with proposed regulations. For example, DOE will not review applications based on challenges to background data associated with a pathway or primary feedstock.

Responsive and complete applications received by DOE will be reviewed as quickly as possible. Variables that may affect the timeline for application review include: 1) volume of applications received around a given transportation fuel production pathway, 2) complexity/ease of evaluating the transportation fuel production pathway, and 3) commercial readiness of the pathway. DOE will inform an applicant whether its application is deemed responsive and complete prior to beginning application review. Upon completion of review, DOE will send an applicant a Calculated Emissions Value Letter (written documentation providing the requested emissions value and DOE control number) which may be used in petitioning the Secretary of the Treasury for a provisional emissions rate (PER). If the emissions rate table is updated during the year of production to include an applicant's fuel type, primary feedstock, or pathway before DOE review is completed, DOE will inform the applicant that the table has been updated and that the application review therefore will not be completed.

An applicant should not include trade secrets or business-sensitive, proprietary, or otherwise confidential information in its Application unless such information is necessary to meet the requirements listed above. If an application includes trade secrets or business-sensitive, proprietary, or otherwise confidential information, it is furnished to the Federal government in confidence with the understanding that the information shall be used or disclosed by DOE only for evaluation of the Application. Additionally, the information provided to DOE for the emissions value analysis may inform updates to the 45ZCF-GREET model. Information disclosed in these updates will be restricted to that which has been gained through other sources or anonymized information gathered through review of applications. These updates will not include any business-sensitive, proprietary, or otherwise confidential information that can be traced to a particular technology or company.

Such confidential business information, that is properly marked and identified, will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, DOE will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for review of the

Application or as otherwise authorized by law. This restriction does not limit the Federal government's right to use the information if it is obtained from another source. Information submitted to DOE will be handled according to 10 CFR 1004.11.

If an applicant chooses to submit trade secrets or business-sensitive, proprietary, or otherwise confidential information, the applicant must provide two copies of the submission (e.g., FEED Study Content, Emissions Value Request Form). The first copy should be marked "non-confidential," with the information believed to be confidential deleted. The second copy should be marked "confidential".

DOE may periodically publish updated versions of the 45ZCF-GREET model, and new versions may contain additional transportation fuel production pathways. Consistent with any guidance issued by the IRS or Treasury with respect to section 45Z, DOE will decline to review applications for emissions values that are pending at the time the fuel's type, primary feedstock, and pathway described in the Application are included in the applicable emissions rate table.