2024





Clean Hydrogen Production Credit

Section references are to the Internal Revenue Code unless otherwise noted.

Future Developments

For the latest information about developments related to Form 7210 and its instructions, such as legislation enacted after they were published, go to IRS.gov/ Form7210.

Reminders

Tax-exempt and governmental entities. Applicable entities (such as certain tax-exempt and governmental entities) can elect to treat the clean hydrogen production credit as a payment of income tax. See Applicable entities, later.

Credit transfers. Eligible taxpayers, partnerships, and S corporations can elect to transfer all or part of the credit amount otherwise allowed as a general business credit to an unrelated third-party buyer in exchange for cash. Eligible taxpayers don't include applicable entities and electing taxpayers. See Credit transfers, later.

Electing taxpayers. Taxpayers, partnerships, and S corporations, electing to be treated as applicable entities, can elect to treat the clean hydrogen production credit as a payment of income tax. See Taxpayers electing to be treated as applicable entities, later.

Pre-filing registration. The IRS has established a pre-filing registration that must be completed prior to electing payment or transfer of the clean hydrogen production credit. See Pre-filing registration requirement for payments or transfers, later.

General Instructions

Purpose of Form

Use a separate Form 7210 to claim the section 45V credit for the production of qualified clean hydrogen produced at each qualified clean hydrogen production facility during the 10-year period beginning on the date the facility is originally placed in service.



You must attach (a) the required verification report, and (b) if you are either petitioning for or CAUTION using a provisional emissions rate, a copy of the documentation obtained from the Department of Energy providing an emissions value.

There is a statutory prohibition in section 45V that disallows the section 45V credit for any qualified clean hydrogen produced at a facility that includes carbon capture equipment for which the section 45Q credit is allowed to any taxpayer for the tax year or any prior tax year.

How To Claim the Credit

To qualify for the credit, the clean hydrogen must be produced in either the United States (as defined in section 638(1)) or a territory of the United States (as defined in section 638(2)), for its sale or use, in the ordinary course of a trade or business of the taxpayer. Additionally, the production and sale or use of such clean hydrogen must be verified by an unrelated party.

File a separate Form 7210 for each qualified clean hydrogen production facility for which you claim the section 45V credit. Complete Part I to report the qualified clean hydrogen production facility information and the appropriate lines of Parts II, III, and IV (if applicable) to calculate your clean hydrogen production credit for such facility. If you claimed a credit for a qualified clean hydrogen production facility and also received a Schedule K-1 for a section 45V credit from a partnership or S corporation, you must file a separate Form 7210 to report your distributive share of any credit from these other sources. Enter "Credit from partnerships and S corporations" on the separate Form 7210, Part I, line 2a, and enter the total credit amount on Part IV, line 11.

Partnerships and S corporations. You must complete and attach a separate Form 7210 for each facility to your return even if (1) you cannot claim the credit, (2) you did not elect to treat the clean hydrogen production credit as a payment under section 6417, or (3) you did not elect to transfer the clean hydrogen production credit (or portion thereof) under section 6418.

Partnerships and S corporations that own and operate a qualified clean hydrogen production facility must file a separate Form 7210. All others are generally not required to complete or file this form if their only source for this credit is from a partnership or S corporation. Instead, they can report this credit directly on Form 3800, General Business Credit.

Amount of Credit

The clean hydrogen production credit for any tax year is adjusted annually for inflation. The credit is calculated by multiplying an applicable amount by the kilograms of qualified clean hydrogen produced. For 2024, the applicable amount ranges from \$0.124 to \$0.622 per kilogram depending on the level of lifecycle greenhouse gas emissions associated with the production of the hydrogen. The credit is multiplied by 5.0 if the qualified clean hydrogen production facility meets certain prevailing wage and apprenticeship requirements or begins construction prior to January 29, 2023 and meets certain prevailing wage requirements.

For information regarding calculating the lifecycle greenhouse gas emissions rate for purposes of determining the amount of the section 45V credit, see <u>Department of Energy/Clean Hydrogen Production Credit</u>. A taxpayer must calculate the lifecycle greenhouse gas emissions rate of its hydrogen production process using 45VH2-GREET.

In the case of any hydrogen produced pursuant to a process for which a lifecycle greenhouse gas emissions rate has not been determined, a taxpayer producing such hydrogen may file a petition with the Secretary of the Treasury to determine the emissions rate with respect to such process. Before filing a petition with the Secretary of the Treasury, a taxpayer must first obtain an emissions value from the Department of Energy. For information regarding obtaining an emissions value, see <u>Department of Energy/45V Emissions Value Request</u>.

Applicable Amount

The credit in any tax year is calculated by multiplying an amount equal to \$0.60 per kilogram (kg) of qualified clean hydrogen produced by an applicable percentage based on the resulting lifecycle greenhouse gas emissions. The \$0.60 amount is adjusted for inflation by multiplying the amount by the inflation adjustment factor for the calendar year in which the qualified clean hydrogen is produced. If this adjusted amount is not a multiple of 0.1 cent, the amount must be rounded to the nearest multiple of 0.1 cent. See Notice 2024-45, available at IRS#NOT-2024-45.

For 2024, the applicable amount is calculated as follows.

Emissions (kg of CO ₂ e per kg of qualified clean hydrogen)	Applicable Percentage (%)	Applicable Amount (per kg of qualified clean hydrogen)
less than 0.45	100%	\$0.622
0.45 to less than 1.5	33.4%	\$0.208
1.5 to less than 2.5	25%	\$0.156
2.5 to not greater than 4.0	20%	\$0.124

Applicable entities. Applicable entities (as defined under section 6417(d)(1)(A)) that generally don't benefit from income tax credits may elect to treat the clean hydrogen production credit attributable to a qualified clean hydrogen production facility originally placed in service after December 31, 2012, as a payment of income tax. Resulting overpayments may result in refunds.

Applicable entities making the elective payment election for the clean hydrogen production credit must file the following.

- Form 7210 and any applicable attachments;
- Form 3800, General Business Credit; and
- Form 990-T, Exempt Organization Business Income Tax Return, or other applicable income tax return.

For a discussion of what is considered an applicable entity, see *Applicable entity making an EPE on IRA 2022 credits* in the Instructions for Form 3800. For more information on elective payment elections under section 6417, see *Elective Payment of Certain Business Credits Under Section 6417 or Section 48D* in the Instructions for Form 3800.

Your election to treat the credit as a payment generally applies to the year you make the election and any subsequent year within the 10-year period beginning on the date such facility was originally placed in service. You must obtain an IRS-issued registration number for the facility in the year you make the election and each of the succeeding years. For facilities originally placed in service in 2023 or after, the election must first be made for the tax year in which the facility is placed in service.

Taxpayers electing to be treated as applicable entities. If you aren't an applicable entity, you can also elect to treat the credit as a payment of taxes on your return. Section 6417(d)(1)(B) allows an electing taxpayer, including a partnership or an S corporation, to treat the credit for the production of clean hydrogen attributable to a qualified facility as a payment or deemed payment of taxes.

For a discussion of who is considered an electing taxpayer, see the Instructions for Form 3800. For more information on elective payment elections under section 6417, see *Elective Payment of Certain Business Credits Under Section 6417 or Section 48D* in the Instructions for Form 3800.

If you make a section 6417(d)(1)(B) election, the election generally applies to the year you make the election and the 4 succeeding years (unless you revoke your election).

Credit transfers. Under section 6418, eligible taxpayers, partnerships, and S corporations that don't elect payment can elect to transfer all or part of the clean hydrogen production credit amount otherwise allowed as a general business credit to an unrelated third-party buyer in exchange for cash. Eligible taxpayers don't include applicable entities. For more information on credit transfers, see *Transfer of Eligible Credits Under Section* 6418 in the Instructions for Form 3800.

Pre-filing registration requirement for payments or transfers. Before you file your tax return, if you intend to make an elective payment election or transfer election on Form 3800 for the clean hydrogen production credit figured in Part II, you must complete a pre-filing registration for each qualified clean hydrogen production facility. To register, go to IRS.gov/Credits-Deductions/Register-for-Elective-Payment-or-Transfer-of-Credits. See Pub. 5884, Inflation Reduction Act (IRA) and CHIPS Act of 2022 (CHIPS) Pre-Filing Registration Tool, for more information. Also see Registering for and Making EPEs and Transfer Elections in the Instructions for Form 3800.

Credit Reduced for Tax-Exempt Bonds

The credit is reduced by an amount that is the product of the credit amount otherwise determined for the tax year and the lesser of 15% or a fraction determined for the tax year. The numerator of the fraction is the sum, for the tax year and all prior tax years, of proceeds of an issue of any obligations the interest on which is exempt from tax under section 103 and which is used to provide financing for the qualified facility as of the close of the tax year. The denominator of the fraction is the aggregate amount of additions to the capital account for the qualified facility for

the tax year and all prior tax years as of the close of the tax year.

Increased Credit Amount for Qualified Clean Hydrogen Production Facilities

In the case of any qualified clean hydrogen production facility that satisfies one of the following requirements, the amount of the credit described above is multiplied by 5.0.

- A facility the construction of which begins prior to January 29, 2023, and which satisfies the prevailing wage requirements with respect to any alterations or repairs occurring after January 29, 2023.
- A facility which satisfies the prevailing wage and apprenticeship requirements.

Prevailing Wage Requirements

To meet the prevailing wage requirements with respect to any qualified clean hydrogen production facility, a taxpayer must ensure that any laborers and mechanics employed by the taxpayer or any contractor or subcontractor in:

- The construction of such facility, and
- The alteration or repair of such facility (with respect to any tax year, for any portion of such tax year that is within the 10-year period beginning on the date the facility is originally placed in service), are paid wages at rates not less than the prevailing rates for construction, alteration, or repair.
- Special correction and penalty mechanisms apply for a taxpayer's failure to satisfy the prevailing wage requirements.

Apprenticeship Requirements

The apprenticeship requirements of IRA 2022 include three components: a labor-hours requirement, a ratio requirement, and a participation requirement.

- Under the labor-hours requirement, the taxpayer must ensure that, depending on when construction began, 10% to 15% of the total labor hours performed in the construction, alteration, or repair of the qualified clean hydrogen production facility are performed by qualified apprentices from a registered apprenticeship program.
- Under the ratio requirement, the taxpayer must ensure that the applicable ratio of apprentices to journey-workers established by the registered apprenticeship program are met for apprentices working on the qualified clean hydrogen production facility each day.
- Under the participation requirement, any taxpayer (or contractor or subcontractor) that employs four or more laborers or mechanics in the construction, alteration, or repair of the qualified facility must also hire at least one qualified apprentice.

For further information on the prevailing wage and apprenticeship requirements, go to <u>IRS.gov/Frequently asked questions about the prevailing wage and apprenticeship under the Inflation Reduction Act</u>.

Definitions

The following definitions apply for qualified clean hydrogen.

Lifecycle greenhouse gas emissions has the same meaning given such term under section 211(o)(1)(H) of the Clean Air Act.

Qualified clean hydrogen means hydrogen that is produced through a process that results in a lifecycle greenhouse gas emissions rate of not greater than 4 kilograms of CO₂e per kilogram of hydrogen.

Qualified clean hydrogen production facility means a facility owned by the taxpayer, which produces qualified clean hydrogen, and the construction of which begins before 2033.

Establishing beginning of construction. A taxpayer may establish that construction of a facility begins:

- By starting physical work of a significant nature (Physical Work Test), or
- By paying or incurring 5% or more of the total cost of the facility (Five Percent Safe Harbor).

Modification of existing facilities. For purposes of the credit availability period, in the case of any facility that was originally placed in service before 2023, and prior to the modification to produce qualified clean hydrogen, that did not produce qualified clean hydrogen, and such facility is modified after 2022 to produce qualified clean hydrogen and the amounts paid or incurred with respect to such modification are properly chargeable to the capital account of the taxpayer, then such facility will be deemed to have been originally placed in service as of the date that the property required to complete the modification to produce qualified clean hydrogen is placed in service.

No overlap with section 45Q credits. No section 45V credit is allowed with respect to any qualified clean hydrogen produced at a facility that includes carbon capture equipment for which a credit is allowed to any taxpayer under section 45Q for the tax year or any prior tax year.

Specific Instructions

Line A. Enter the facility's lifecycle greenhouse gas emissions value or rate (kg of CO₂e per kg of qualified clean hydrogen) for each hydrogen production process. If applicable, you must enter the facility's control number obtained from the Department of Energy (DOE) for the qualified clean hydrogen.

Part I—Information on Qualified Clean Hydrogen Production Facility

Line 1

If you are making an elective payment election or making an election to transfer the clean hydrogen production credit (or portion thereof), enter your pre-filing registration number that you received from the IRS for the qualified clean hydrogen production facility. See IRS.gov/Register for elective payment or transfer of credits.

Line 2

If the owner of the facility is different from the filer, include the owner's name and taxpayer identification number.

Line 2a

Enter the address of the facility. Enter the name of the qualified clean hydrogen production facility or a detailed technical description of the facility.

Line 2b

Enter the coordinates of the facility (longitude and latitude). If you entered a registration number on line 1, this information should correspond to the information provided to obtain a registration number for such facility.

Enter the date construction began. See Establishing beginning of construction, earlier. For the modification of an existing facility, enter the date that you began construction to modify the existing facility to produce qualified clean hydrogen.

Line 4

Enter the date the qualified clean hydrogen production facility was originally placed in service.



You may only claim the clean hydrogen production credit after 2022 at a qualified clean hydrogen CAUTION production facility for the 10-year period beginning

on the date the facility or modification of an existing facility is originally placed in service.

Line 5

Check the box if you are eligible for the increased credit amount for the qualified clean hydrogen production facility and attach the required information. See Increased Credit Amount for Qualified Clean Hydrogen Production Facilities, earlier.

Additional information for increased credit amount. If you checked the box on line 5 and entered an increased amount on line 10, you must also attach a statement to Form 7210 that includes the following information to claim the increased credit amount for the qualified clean hydrogen production facility. You must attach a separate statement for each qualified clean hydrogen production facility. The statement must include the following information.

- 1. Your name and taxpayer identification number, the facility description, and the IRS-issued registration number (if applicable) from Part I.
- 2. For each qualified clean hydrogen production facility that began construction before January 29, 2023, a statement that you met the Continuity Requirement under the Physical Work Test or the Five Percent Safe Harbor to establish the beginning of construction and satisfied the prevailing wage requirements with respect to an alteration or repair that occurs after January 29, 2023 (to the extent applicable).
- 3. For each qualified clean hydrogen production facility or modification to an existing facility (1) that began construction on or after January 29, 2023; or (2) an alteration or repair that occurs at a facility after January 29, 2023, the construction of which began before January 29, 2023, include the following. The apprenticeship statements only apply to facilities for which construction began on or after January 29, 2023.
- a. The location and type of the qualified clean hydrogen production facility.

- b. The applicable wage determinations for each classification of laborer and mechanic who performed work on the construction, alteration, or repair of the facility.
- c. The wages paid (including any correction payments (as defined in section 45(b)(7)(B)(i)(I)) and hours worked for each of the laborer or mechanic classifications engaged in the construction, alteration, or repair of the facility.
- d. The number of laborers and mechanics who received correction payments as the result of any failure to pay the applicable prevailing wage rates.
- e. The amount of penalty payments owed with respect to any failures to pay the applicable prevailing wage rates.
- f. The wages paid and hours worked by qualified apprentices for each of the laborer or mechanic classifications engaged in the construction of the facility.
- g. The total labor hours for the construction of the facility by any laborer or mechanic employed by the taxpayer or any contractor or subcontractor.
- h. The amount of hours for which you claim to have satisfied the apprenticeship requirements under the good-faith effort exception.
- i. The amount of penalty payments owed with respect to any failure to meet the labor-hours requirement or the participation requirement.
- 4. A declaration, applicable to the statement and any accompanying documents, signed by you, or signed by a person currently authorized to bind you in such matters, in the following form: "Under penalties of perjury, I declare that I have examined this statement, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this statement are true, correct, and complete."

Applicable wage determinations. These are the wages listed for a particular classification of laborer or mechanic on the applicable wage determination for the type of construction and the geographic area, as determined by the Secretary of Labor.

Part II—Clean Hydrogen Production

Enter the applicable amount multiplied by the kilograms of qualified clean hydrogen produced based on the lifecycle greenhouse gas emissions rate that results from the production of qualified clean hydrogen. See *Applicable* Amount, earlier.

Line 7

Add column (c) of lines 6a through 6d and enter the amount. Only one emissions rate should be used to calculate the credit for each hydrogen production process.

Part III—Credit Reduced for Tax-Exempt Bonds

Line 8

Calculate the reduction of credit for tax-exempt bonds with respect to a qualified clean hydrogen production facility. See Credit Reduced for Tax-Exempt Bonds, earlier.

Part IV—Clean Hydrogen Production Credit

Line 10

If you checked the box on line 5 in Part I, multiply the amount on Part III, line 9, by 5.0. See the instructions for Part I, line 5, under <u>Additional information for increased credit amount</u>, earlier. Otherwise, enter the amount from line 9.

Line 11

Enter the total clean hydrogen production credit amount from your distributive share reported on:

- Schedule K-1 (Form 1065), Partner's Share of Income, Deductions, Credits, etc., box 15 (code Y).
- Schedule K-1 (Form 1120-S), Shareholder's Share of Income, Deductions, Credits, etc., box 13 (code Y).

If you are separately calculating a section 45V credit and are also reporting your distributive share of a section 45V credit from a lower-tier entity, enter your distributive share amount as "Credit from pass-through entities" on Form 7210, Part I, line 2a. All others not calculating a separate section 45V credit can report their distributive share directly on Form 3800, Part III, line 1g.

Line 12

Add lines 10 and 11. If you are a partnership or S corporation and you elect payment under section 6417(c) for any clean hydrogen production credit, report the amount with respect to a qualified clean hydrogen production facility on Form 3800, Part III, line 1g. Don't report the total credit amount on Schedule K.

If you are an eligible taxpayer, including a partnership or S corporation, and elect to transfer any clean hydrogen production credit (or portion thereof), report the entire amount of the clean hydrogen production credit with respect to a qualified clean hydrogen production facility on

Form 3800, Part III, line 1g. You must also attach additional information to Form 3800, Part III, line 1g. See the Instructions for Form 3800.

Paperwork Reduction Act Notice. We ask for the information on this form to carry out the Internal Revenue laws of the United States. You are required to give us the information. We need it to ensure that you are complying with these laws and to allow us to figure and collect the right amount of tax.

You are not required to provide the information requested on a form that is subject to the Paperwork Reduction Act unless the form displays a valid OMB control number. Books or records relating to a form or its instructions must be retained as long as their contents may become material in the administration of any Internal Revenue law. Generally, tax returns and return information are confidential, as required by section 6103.

The time needed to complete and file this form will vary depending on individual circumstances. The estimated burden for individual and business taxpayers filing this form is approved under OMB control numbers 1545-0123 and 1545-0047 and is included in the estimates shown in the instructions for their individual and business income tax return. The estimated burden for all other taxpayers who file this form is shown below.

Recordkeeping	4 hr., 46 min.
Learning about the law or the form	18 min.
Preparing and sending the form to the IRS	23 min.

If you have comments concerning the accuracy of these time estimates or suggestions for making this form simpler, we would be happy to hear from you. See the instructions for the tax return with which this form is filed.