

## Inflation Reduction Act of 2022 (IRA) Resource



### OVERVIEW

Since the passage of the Inflation Reduction Act of 2022 (IRA), the United States' largest climate bill to date, the Wilson Sonsini Energy and Climate Solutions team has worked to integrate into the fabric of our legal services the IRA's sometimes complex programs for the distribution of billions of dollars in new and re-authorized tax credits and other non-dilutive capital.

Our Energy and Climate Solutions attorneys—several of whom have prior government experience—have continuously provided insights and analysis of the bill for clients and various nonprofits. The implementation of this once-in-a-generation piece of legislation by the Department of the Treasury, Internal Revenue Service, Department of Energy, and other federal entities is complex and constantly evolving. In order to provide a comprehensive set of resources related to IRA implementation, we are pleased to bring together our publications, client alerts, webinars and speaking engagements, our IRA implementation tracker, and our clean energy federal funding database.

We endeavor to provide Wilson Sonsini clients with actionable insights that help unlock the benefits for solar and wind; batteries and energy storage; carbon capture, use, and sequestration (CCUS); industrial decarbonization; EVs and charging infrastructure; hydrogen; nuclear; advanced manufacturing, and energy efficiency. Please consult with your Wilson Sonsini contact for additional guidance or questions on these matters.

### INSIGHTS AND RESOURCES

#### Pending Legislation Impacting the IRA

- [Alert | The One Big Beautiful Bill: Tax Provisions Impacting the Energy and Climate Solutions Sector, May 28, 2025](#)

#### Solar, Wind, Energy Storage, and More

- [White Paper | Claiming Tech-Neutral Clean Electricity Production and Investment Tax Credits Under the Inflation Reduction Act, July 3, 2024](#)
- [Alert | Treasury and IRS Release New Safe Harbor Election for Domestic Content Bonus Credits, May 29, 2024](#)
- [Alert | DOE and IRS Set to Open Second and Potentially Final Round of Section 48C Qualifying Advanced Energy Project Credit Applications, May 2, 2024](#)
- [Alert | Treasury and IRS Release Long-Awaited Proposed Regulations on Section 48 Investment Tax Credits, December 1, 2023](#)
- [Alert | Treasury and IRS Release Proposed Regulations Regarding the Prevailing Wage and Apprenticeship Requirements, September 6, 2023](#)
- [White Paper | Solar, Wind, and Energy Storage Incentives in the Inflation Reduction Act of 2022, August 20, 2023](#)
- [White Paper | Claiming the Domestic Content Bonus Credit under the Inflation Reduction Act of 2022, August 20, 2023](#)
- [Alert | IRS Releases New Proposed Rules for the Low-Income Communities Bonus Credit for the Investment Tax Credit, June 7, 2023](#)
- [Alert | IRS Releases Preliminary Guidance on the IRA Energy Community Bonus Credit, April 6, 2023](#)
- [Alert | U.S. Treasury and the IRS Issue Request for Public Comments on Energy Tax Provisions in the Inflation Reduction Act, October 20, 2022](#)
- [Alert | Inflation Reduction Act Signed into Law: Important Tax Provisions and Energy Incentives You Need to Know, August 16, 2022](#)
- [Alert | Understanding and Unlocking the IRA and Clean Energy & Climate Solutions Federal Funding Opportunities, August 16, 2022](#)

## Clean Hydrogen

- [Alert | Treasury and IRS Propose Supplemental Notice Regarding Clean Hydrogen Production Tax Credit Regulations, April 17, 2024](#)
- [Alert | Treasury and IRS Release Proposed Regulations on Section 45V Hydrogen Production Tax Credit, January 2, 2024](#)

## Electric Vehicles and Charging Infrastructure Resources

- [Alert | Treasury and IRS Release Proposed Regulations for Alternative Fuel Vehicle Refueling Property Tax Credit Under Section 30C, October 2, 2024](#)
- [Alert | Treasury and IRS Release Notice of Forthcoming Proposed Regulations on Section 30C Alternative Fuel Vehicle Refueling Property Credit, January 26, 2024](#)
- [Advisory | Inflation Reduction Act of 2022: Electric and Clean Vehicle and Alternative Refueling and Charging Tax Credits, September 1, 2023](#)

## Advanced Manufacturing

- [Alert | Treasury and IRS Release Final Regulations on Section 45X Advanced Manufacturing Credit, November, 4, 2024](#)
- [Alert | Treasury and IRS Release Proposed Regulations on Section 45X Advanced Manufacturing Credit, December 20, 2023](#)

## Tax Credit Monetization Resources

- [Alert | Treasury and IRS Release Final Regulations on Credit Transferability, May 7, 2024](#)
- [Alert | Treasury and IRS Release Proposed and Final Regulations on Direct Pay Elections, March 12, 2024](#)
- [White Paper | Opportunities for Financing Renewable Energy Projects Using the Direct Pay and Transferability Regimes under the Inflation Reduction Act of 2022, August 20, 2023](#)

## IMPLEMENTATION TRACKER

---

Last Updated: May 2, 2025

**IRA Implementation Tracker:** Since the passage of the IRA, the Internal Revenue Service (IRS) and the Department of the Treasury (Treasury) have provided certain proposed, temporary, and final regulations, as well as other forms of guidance, on the tax credits included within the bill. The status of the guidance across each tax credit is continually evolving. In an effort to provide Wilson Sonsini clients with an overview of where each credit and bonus credit are regarding their implementation, below we provide an “***Overall Implementation Status***” under each credit to reflect what guidance has been issued as of the date reflected above and indicate what is further expected.

As a general matter, taxpayers may rely on issued temporary guidance from the IRS (which comes often in the form of “Notices”), even though future, final regulations will be issued that may contradict old, temporary guidance, notices, or regulations. At the time final regulations are issued (if they are issued), those final regulations will control. Please note that some tax credits that were extended and modified under the IRA were previously authorized; accordingly, some previously-issued guidance and regulations may still be applicable. Please consult Wilson Sonsini regarding specific questions of applicability of previous, interim, or temporary guidance.

### Multiple Technologies Including Solar, Wind, and Storage: Code Sections 48, 45, 48E, and 45Y (ITC/PTC)

- **General**
  - [Final Regulations](#) (Published January 15, 2025; provides final regulations regarding eligibility for tech-neutral PTC under Section 45Y and tech-neutral ITC under Section 48E; clarifies non-aggregation of qualified facilities and qualified facilities/energy storage technology; clarifies interaction of “80/20 Rule” and a new “Incremental Production Rule” for purposes of retrofit projects; amends and clarifies definitions pertaining to combustion or gasification facilities, renewable gas inputs, thermal energy property, and hydrogen energy storage property)
  - [Revenue Procedure 2025-14](#) (Published January 15, 2025; provides first annual table with greenhouse gas emission rates for certain categories of facilities that are eligible for tech-neutral PTC under Section 45Y and tech-neutral ITC under Section 48E)
  - [Final Regulations](#) (Published December 4, 2024; provides final regulations regarding types of energy property eligible for the ITC, clarifies single project energy rules, and provides updated recapture rules)
  - [Notice of Proposed Rulemaking](#) (Published June 3, 2024; provides proposed regulations pertaining to eligibility for tech-neutral PTC under Section 45Y and tech-neutral ITC under Section 48E and determination of greenhouse gas emissions resulting from production of electricity; applies to facilities and energy property placed in service after 2024)
  - [Notice of Proposed Rulemaking](#) (Published November 22, 2023; provides proposed regulations pertaining to types of energy property eligible for the ITC, clarifies new transfer rules and recapture rules for failure to satisfy prevailing wage and apprenticeship requirements, qualified interconnection costs, 80/20 repowering rule, and more).
- **Prevailing wage and apprenticeship increased credit amount**
  - [Overall Implementation Status](#): Final regulations published. Please see “Cross-Cutting Guidance” for list of tax credits that this same prevailing wage and apprenticeship guidance is applicable to.

- [Final Regulations](#), (Published June 25, 2024)
- [Notice of Proposed Rulemaking](#) (Published August 30, 2023; provides proposed regulations for implementing the prevailing wage and apprenticeship increased credit amount, including substantiation and record-keeping requirements, exceptions, and other matters)
- [Notice 2022-61](#) (Initial Guidance; issued November 30, 2022)
- **Domestic content bonus credit**
  - Overall Implementation Status: Initial guidance released, awaiting proposed regulations beyond this initial guidance.
    - [Notice 2025-08](#) (Provides First Updated Elective Safe Harbor for Determining Cost Percentages for Adjusted Percentage Rule; issued January 16, 2025)
    - [Notice 2024-84](#) (Extension of Transition Process for Claiming the Statutory Exceptions to the Elective Payment Phaseouts; extends the transition process through 2026 for claiming a statutory exception to the direct pay phaseouts provided in Notice 2024-9; issued November 22, 2024)
    - [Notice 2024-41](#) (Expansion of Applicable Projects for Safe Harbor in Notice 2023-38; New Elective Safe Harbor for Determining Cost Percentages for Adjusted Percentage rule; issued May 16, 2024 (reissued with corrections on May 24, 2024))
    - [Notice 2024-9](#) (Exception for Applicable Entities for Elective Payment Projects, announced forthcoming proposed regulations to be issued on the application of the domestic content requirements to taxpayers using direct pay to monetize PTCs and ITCs from certain renewable energy projects and exceptions to complying with such requirements in certain cases; issued December 28, 2023)
    - [Notice 2023-38](#) (Initial Guidance; issued May 12, 2023)
- **Energy communities bonus credit**
  - Overall Implementation Status: Initial guidance released, Notices issued for certain tax years, proposed regulations forthcoming.
    - [Notice 2024-48](#) (Updated census tracts for the Statistical Area Category and the Coal Closure Category; issued June 7, 2024)
      - [Appendix 1](#): MSAs and non-MSAs that qualify as energy communities by meeting the Fossil Fuel Employment threshold and the unemployment rate requirement for calendar year 2023.
      - [Appendix 2](#): Additional census tracts that have ever had, since December 31, 1999, a closed coal mine or have ever had, since December 31, 2009, a retired coal-fired electric generating unit, and directly adjoining tracts that were not included in Appendix C to Notice 2023-29 or Appendix 3 to Notice 2023-47, as of April 1, 2024.
    - [Notice 2024-30](#) (Expanded nameplate capacity attribution rule to include offshore wind farm projects as qualifying projects; added two new NAICS codes for purposes of measuring minimum fossil fuel related employment under the Statistical Area Category; issued March 22, 2024)
      - [Appendix 1](#): Additional MSAs and non-MSAs that meet Fossil Fuel Employment Threshold and not included in Appendix B to Notice 2023-29.
      - [Appendix 2](#): MSAs and non-MSAs that qualify as energy communities in 2023 by meeting the Fossil Fuel Employment threshold and unemployment rate requirement for calendar year 2022.
    - [Notice 2023-47](#) (Published list of information taxpayers may use to meet certain requirements under the Statistical Area Category or Coal Closure Category, described further herein; issued June 15, 2023). Applicable Appendices listed below:
      - [Appendix 1](#): Additional MSAs and non-MSAs that meet Fossil Fuel Employment Threshold and not included in Appendix B to Notice 2023-29.
      - [Appendix 2](#): MSAs and non-MSAs that qualify as energy communities in 2023 by meeting the Fossil Fuel Employment threshold and unemployment rate requirement for calendar year 2022.
      - [Appendix 3](#): Additional census tracts that have ever had, since December 31, 1999, a closed coal mine or have ever had, since December 31, 2009, a retired coal-fired electric generating unit, and directly adjoining tracts that were not included in Appendix C to Notice 2023-29.
    - [Notice 2023-45](#) (Update to Notice 2023-29 for certain special rules on beginning of construction, brownfield site safe harbor for projects with nameplate capacity not greater than 5 MW AC, and other matters; issued June 15, 2023)
    - [Notice 2023-29](#) (Initial Guidance; issued April 4, 2023)
      - [Appendix A](#): Treasury/IRS-defined MSAs and non-MSAs for IRA Energy Community Tax Credit Bonus.
      - [Appendix B](#): MSAs and non-MSAs that meet the Fossil Fuel Employment threshold (unemployment rate requirement yet to be determined).
      - [Appendix C](#): Census tracts that have ever had, since December 31, 1999, a closed coal mine or have ever had, since December 31, 2009, a retired coal-fired electric generating unit, and directly adjoining tracts.
- **Low-income bonus credit allocation and associated application**
  - Overall Implementation Status: Code Section 48 program completed. Application period for Code Section 48E(h) program began on January 16, 2025. 30-day initial application period closed February 14, 2025. Rolling application period closes August 1, 2025. Updates on available capacity by allocation category are available at the Department of Energy's [Program Capacity Dashboard](#). Final regulations under Code Section 48 issued. Final regulations under Code Section 48E issued.



- [Final Regulations](#) (Published January 13, 2025; provides final regulations related to the low-income communities bonus credit program for Tech-Neutral ITC under Section 48E(h))
- [Revenue Procedure 2025-11](#) (Issued January 13, 2025; provides procedural guidance for purposes of the 2025 program for Tech-Neutral ITC under Section 48E(h))
- [Notice of Proposed Rulemaking](#) (Published September 3, 2024; provides proposed regulations relating to the low-income communities bonus credit program for the Tech-Neutral ITC under Section 48E(h), including updated rules for applicable facility categories, nameplate capacity limitation, geographic location tests, and reservations for capacity limitation; the Section 48(h) low-income bonus credit program is effective as of January 1, 2025)
- [Announcement 2024-25](#) (Issued June 17, 2024; provides total amount of unallocated environmental justice solar and wind capacity limitation that has been carried over from the 2023 program year to 2024 program year; sets forth distribution of the carried over capacity limitation among the facility categories)
- [Final Regulations](#) (Published August 10, 2023)
- [Revenue Procedure 2024-19](#) (Issued March 29, 2024; supersedes Revenue Procedure 2023-27 for purposes of 2024 program)
- [Revenue Procedure 2023-27](#) (Issued August 10, 2023)
- [Proposed Rulemaking](#), (Published May 31, 2023)
- [Notice 2023-17](#) (Initial Guidance; issued February 13, 2023)

#### Advanced Manufacturing Credits: Code Sections 45X and 48C

- **48C Qualifying Advanced Energy Project Credit Allocation Program**
  - [Overall Implementation Update](#): \$10 billion of 48C credits have been allocated. Please further note that the prevailing wage and apprenticeship guidance also applies to 48C.
    - [Notice 2024-36](#) (Guidance for allocation of remaining 60% of programmatic funds; provides appendices setting forth application requirements, review process and criteria; issued April 30, 2024)
    - [Notice 2023-44](#) (Additional Guidance, clarifying and modifying Notice 2023-18; issued May 31, 2023)
    - [Notice 2023-18](#) (Initial Guidance for 40% (\$4 billion) of 48C credits; issued February 13, 2023)
- **45X Advanced Manufacturing Credit**
  - [Overall Implementation Update](#): Final regulations issued in October 2024. See below regarding elective payment guidance.
    - [Final Regulations](#) (Published October 28, 2024; provide final rules on Section 45X credit, including updates to the proposed rules regarding the production of eligible components and applicable critical minerals, treatment of indirect and direct materials costs, substantiation requirements for credit eligibility, and revised definitions relevant to taxpayer production activities; regulations are effective on December 27, 2024)
    - [Notice of Proposed Rulemaking](#) (Published December 15, 2023)

#### Clean Vehicles: Code Sections 30D, 30C, 45W, and 25E

- **Implementing guidance affecting multiple vehicle credits**
  - [Overall Implementation Update](#): Notices, revenue procedures, and fact sheets released. Additional guidance expected.
    - [Fact Sheet 2024-26](#) (updates FAQs to provide guidance related to eligibility rules, income limitations, transfer rules and dealer registration regarding new, previously owned, and qualified commercial clean vehicle credits; this FAQ supersedes FS-2024-14; released April 16, 2024)
    - [Fact Sheet 2024-14](#) (updates FAQ regarding new, previously owned, and qualified commercial vehicle credits; this FAQ supersedes FS-2023-29; released December 26, 2023)
    - [Revenue Procedure 2023-38](#) (Guidance related to submission to IRS by qualified manufacturers of clean vehicles, previously-owned clean vehicles, and commercial clean vehicles; issued December 1, 2023)
    - [Fact Sheet 2023-29](#) (Provides guidance related to critical mineral and battery component requirements for new, previously owned, and qualified commercial clean vehicle credits; released December 26, 2023)
    - [Notice 2023-16](#) (Modifies the definitions of certain vehicle classifications for new, previously owned, and qualified commercial clean vehicle credits. Modifies Notice 2023-01 by changing the vehicle classification standard by which vans, sport utility vehicles, pickup trucks, and other vehicles are defined; issued February 3, 2023)
    - [Fact Sheet 2023-4](#) (FAQ regarding new, previously owned, and qualified commercial vehicle credits; this FAQ supersedes FS-2022-42; released December 29, 2022).
    - [Revenue Procedure 2022-42](#) (Details procedures for qualified manufacturers to enter into written agreements with the Secretary of the Treasury for reporting information related to manufacturing of vehicles for purposes of 30D and 25E; released December 12, 2022)
- **30D (New Clean Vehicles)**
  - [Final Regulations](#) (Published May 6, 2024; provides final regulations on Section 30D credit transfers, sourcing of critical minerals and battery components, and restrictions related to sourcing same from foreign entities of concern; regulations are effective on July 5, 2024)

- [Revenue Procedure 2024-26](#) (Updates existing procedures for qualified manufacturers to submit information regarding new clean vehicles; establishes a compliant-battery ledger, which is a ledger that tracks the number of foreign entity of concern (“FEOC”) compliant batteries per calendar year; establishes a report for the transition rule for impracticable-to-trace battery materials; updates critical mineral content and qualifying battery component content reporting requirements and compliance procedures, including documentation and attestations to be provided to the Department of Energy; issued June 24, 2024)
- [Revenue Procedure 2024-12](#) (Extends the time for providing certain seller reports applicable to both 30D and 25E; issued March 18, 2024)
- [Updated List of Credit Eligible Vehicles](#) (Department of Energy maintains a list of eligible clean vehicles that qualified manufacturers have indicated to the IRS meet the requirements to claim the 30D credit; list is updated as of January 8, 2024)
- [Notice of Proposed Rulemaking](#) (Published December 4, 2023; provides proposed regulations on Section 30D excluded entities and further definitions with respect to new clean vehicles and qualified manufacturers. The comment period closed on January 18, 2024)
- [Notice of Proposed Rulemaking](#) (Published October 10, 2023; provides proposed regulations regarding 30D. The comment period closed on December 11, 2023. Rules are generally proposed to apply to new clean vehicles placed in service in taxable years beginning after October 10, 2023. Proposed transferability regime for transfer of 30D credits by vehicle buyers to dealers proposed to apply to vehicles placed in service after December 31, 2023)
- [Revenue Procedure 2023-33](#) (Details procedures for transfer of 30D credits by taxpayer purchasing new clean vehicle to eligible entity, including registration procedures for qualified manufacturers and sellers and procedures for dealer registration and the suspension and revocation of that registration. This revenue procedure also establishes a program to make advance payments of credit amounts to registered dealers; issued October 6, 2023)
- [Notice of Proposed Rulemaking](#) (Published April 17, 2023; Treasury and IRS proposed regulations regarding 30D per Notice 2023-01, below)
- [Notice 2023-01](#) (IRS and Treasury stated intent to publish regulations related to 30D. Such proposed regulations will include definitions of final assembly, North America, manufacturer’s suggested retail price, classifications for categories of vehicles, including vans, sport utility vehicles, pickup trucks, and other vehicles, and placed in service; issued December 29, 2022)
- **30C (Alternative Fuel Vehicle Refueling Property Credit)**
  - [Notice of Proposed Rulemaking](#) (Published September 19, 2024; provides proposed regulations pertaining to 30C Credit amounts and clarifies rules relating to eligibility criteria for qualifying property, prevailing wage and apprenticeship requirements, geolocation eligibility, and more; the rules apply to qualified fuel vehicle refueling property placed in service after December 31, 2022, and before January 1, 2033; the IRS issued Notice 2024-64 concurrently with the proposed regulations, modifying Notice 2024-20)
  - [Notice 2024-64](#) (Modifying Notice 2024-20 to determine eligible census tracts in non-urban and low-income communities; issued September 18, 2024)
  - [Notice 2024-20](#) (Provides guidance on determining eligible census tracts in non-urban areas and low-income communities, including appendices to assist taxpayers in confirming eligibility based on geographic identifiers (GEOIDs) for non-urban census tracts and low-income community population census tracts; issued January 19, 2024)
- **45W (Qualified Commercial Clean Vehicle)**
  - [Notice of Proposed Rulemaking](#) (Published January 14, 2025; provides proposed regulations pertaining to 45W credit amounts, including rules pertaining to calculation of incremental cost of qualifying commercial clean vehicles and definitional rules for types of qualifying vehicles)
  - [Notice 2025-9](#) (Provides a safe harbor regarding the incremental cost of certain qualified commercial clean vehicles placed in service in calendar year 2025; issued January 15, 2025)
  - [Notice 2024-5](#) (Provides a safe harbor regarding the incremental cost of certain qualified commercial clean vehicles placed in service in calendar year 2024; issued December 20, 2023)
  - [Notice 2023-09](#) (Provides a safe harbor regarding the incremental cost of certain qualified commercial clean vehicles placed in service in calendar year 2023; issued December 31, 2022)
- **25E (Previously-Owned Clean Vehicles)**
  - [Revenue Procedure 2024-12](#) (Extends the time for providing certain seller reports applicable to both 30D and 25E; issued March 18, 2024)
  - [Final Regulations](#) (Published May 6, 2024; provides final regulations on Section 25E credit transfers; regulations are effective on July 5, 2024)
  - [Notice of Proposed Rulemaking](#) (Published October 10, 2023; provides proposed regulations regarding 25E. Rules are generally proposed to apply to previously-owned clean vehicles placed in service in taxable years beginning after October 10, 2023. Proposed transferability regime for transfer of 25E credits by vehicle buyers to dealers proposed to apply to vehicles placed in service after December 31, 2023)
  - [Revenue Procedure 2023-33](#) (Details procedures for transfer of 25E credits by taxpayer purchasing previously-owned clean vehicle to eligible entity, including registration procedures for qualified manufacturers and sellers and procedures for dealer registration and the suspension and revocation of that registration. This revenue procedure also establishes a program to make advance payments of credit amounts to registered dealers; issued October 6, 2023)

## Home and Building Electrification and Energy Efficiency: Code Sections 25C, 25D, 179D, and 45L

- **25C (Energy efficient home improvement credit)**

- **Overall Implementation Update:** Proposed Regulations and Revenue Procedure issued on October 25, 2024. Other announcements and fact sheets released.
  - [Fact Sheet 2025-1](#) (Released January 17, 2025; provides updated and superseding FAQs regarding 25C credits)
  - [Notice of Proposed Rulemaking](#) (Published October 25, 2024; proposed regulations provide guidance for both taxpayers and manufacturers regarding new requirements for claiming the 25C credit)
  - [Revenue Procedure 2024-31](#) (Issued October 25, 2024; specifies compliance procedures and requirements that a manufacturer of specified property must follow to be treated as a “qualified manufacturer” for purposes of the 25C credit)
  - [Announcement 2024-19](#) (Released April 5, 2024; addresses tax treatment of rebates provided by Department of Energy under its Home Energy Rebate Program (as established by the IRA); provides coordinating rules for purposes of taxpayers who both receive rebates and intend to claim 25C credits)
  - [Notice 2024-13](#) (Issued December 29, 2023; requested comments on implementation of “product identification number” requirement for certain categories of products eligible for 25C credits, beginning January 1, 2025)
  - [Notice 2023-59](#) (Issued August 4, 2023; IRS and Treasury intend to issue proposed regulations to address requirements for home energy audits with respect to 25C. Notice sets forth various definitions, requirements for qualifying as a home energy auditor, substantiation requirement and transition rule)
  - [Fact Sheet 2022-40](#) (Released December 22, 2022; provides FAQs regarding 25D and 25C)
- **25D (Residential clean energy credit)**
  - **Overall Implementation Update:** Fact sheets released
    - [Fact Sheet 2025-1](#) (Published January 17, 2025; provides updated and superseding FAQs regarding 25D and 25C credits)
    - [Fact Sheet 2022-40](#) (Released December 22, 2022; provides FAQs regarding 25D and 25C credits)
- **179D (Commercial buildings energy efficiency tax deduction) and Provision 13703 cost recovery for qualified clean energy facilities, property, and technology**
  - **Overall Implementation Update:** Guidance released as to Reference Standard 90.1, which provides the minimum energy-efficient design requirements for most buildings. No additional guidance released to date.
    - [Announcement 2024-24](#) (Released June 10, 2024; notifies taxpayers that Reference Standard 90.1-2022 is the applicable reference standard required under Code Section 179D for energy efficient commercial building property placed in service after December 31, 2028, and the construction of which did not begin by December 31, 2022; supplements and supersedes Announcement 2023-01)
    - [Announcement 2023-01](#) (Released January 1, 2023; notified taxpayers of applicable reference standards required under Code Section 179D, based on when energy efficient commercial building property is placed in service)
    - [Notice 2012-26](#) (prior guidance, released 2012)
    - [Notice 2008-40](#) (prior guidance, released 2008)
    - [Notice 2006-52](#) (prior guidance, released 2006)
    - [Provision 13703 Guidance](#)
- **45L (Energy efficient home credit)**
  - **Overall Implementation Update:** Initial guidance released in September 2023. Please further note that the recent prevailing wage and apprenticeship guidance also applies to 45L.
    - [Notice 2023-65](#) (Issued September 27, 2023; provides implementation guidance for 45L)

## Sustainable Aviation Fuel (SAF) and Clean Fuels: Code Sections 40B and 45Z

- **Overall Implementation Update:** Initial guidance provided in Notices below for SAF and Clean Fuels. The prevailing wage and apprenticeship guidance is applicable to 45Z.
  - [Notice 2025-11](#) (Issued January 10, 2025; provides initial guidance on methodology used to determine greenhouse gas emission rates for various pathways of clean fuel production that impact the 45Z credit amount)
  - [Notice 2025-10](#) (Issued January 10, 2025; provides emission rates of certain fuels and pathways for purposes of calculating 45Z credits; clarifies when fuels are “suitable for use” in a highway vehicle or aircraft; clarifies what is considered a qualifying “sale” and “production” of 45Z eligible fuel; clarifies what is a “qualified facility” and who is a “qualified taxpayer”)
  - [Notice 2024-74](#) (Issued October 18, 2024; provides updated instructions for taxpayers using the 40BSAF-GREET 2024 model to claim SAF credits under Code Sections 40B and 6426(k) for the sale or use of a SAF-qualified mixture on or after October 18, 2024, for purposes of applying the safe harbor methodologies in Notice 2024-37)
  - [Fact Sheet 2024-25](#) (Released July 10, 2024; provides answers to frequently asked questions regarding 45Z credits)
  - [Notice 2024-49](#) (Issued May 31, 2024; provides guidance on registration requirements for 45Z credits, as a prerequisite for claiming such credits)
  - [Notice 2024-37](#) (Issued April 30, 2024; provides safe harbors regarding use of 40BSAF-GREET 2024 model for calculating lifecycle greenhouse gas emissions reduction percentage and use of USDA Climate Smart Agriculture Pilot Program to further reduce lifecycle greenhouse gas emissions for domestic soybean and domestic corn feedstocks and related certifications)
  - [40BSAF-GREET Model](#) (Released April 30, 2024, by Department of Energy in conjunction with Notice 2024-37)
  - [Notice 2024-6](#) (Released December 13, 2023; provides guidance on new SAF credits regarding the lifecycle greenhouse gas emissions reduction percentage and certification of sustainability requirements and safe harbors)
  - [Notice 2023-06](#) (Released December 19, 2022; provides guidance on new SAF credits under Code Section 40B and 6426(k))



- [Notice 2022-39](#) (Released September 13, 2022; explains how to file a one-time claim for credit and payments for alternative fuels)

#### Clean Hydrogen: Code Section 45V

- [Overall Implementation Update](#): Final regulations released January 10, 2025. Please also see “Cross-cutting guidance,” and note that the prevailing wage and apprenticeship guidance applies to 45V.
  - [Final Regulations](#) (Published January 10, 2025; provides updated criteria regarding the “three pillars” (i.e., restrictions on the use of energy attribute certificates to qualify for 45V credits), calculation of greenhouse gas emissions, qualification for credits based on use of methane reforming technologies (i.e., blue hydrogen), and a new beginning of construction safe harbor to mitigate concerns about future updates to the GREET model for purposes of greenhouse gas emission calculations)
  - [Notice of Proposed Rulemaking](#) (Published December 22, 2023, provides initial guidance on 45V, in particular, outlines new criteria for Renewable Energy Certificates to qualify for purposes of claiming 45V credits (sometimes referred to as the “three pillars”) 2024)
  - [45VH2-GREET Model Download Link](#)
  - [Department of Energy 45V White Paper](#) (Overviews lifecycle greenhouse gas emissions associated with electricity use for producing clean hydrogen; released December 22, 2023)
  - [Guidelines to Determine Well-to-Gate Greenhouse Gas \(GHG\) Emissions of Hydrogen Production Pathways using 45VH2-GREET 2023](#) (User Manual; released December 22, 2023)
  - [Environmental Protection Agency, Letter to Treasury on the definition of lifecycle greenhouse gas emissions under the Clean Air Act to support Treasury’s interpretation and implementation of Internal Revenue Code Section 45V](#) (Released December 22, 2023)
  - [Department of Energy National Transmission Needs Study](#) (Released October 2023)

#### Carbon Capture, Utilization, and Sequestration (CCUS): Code Section 45Q

- [Overall Implementation Update](#): Limited guidance issued regarding the information that must be provided in a lifecycle analysis (LCA) report submitted to the IRS. Please also see “Cross-cutting guidance,” and note that the prevailing wage and apprenticeship guidance applies to 45Q.
  - [Notice 2024-60](#) (Issued July 24, 2024; provides guidance with respect to information required and procedures a taxpayer must follow with respect to the LCA report)

#### Nuclear: Code Section 45J

- [Overall Implementation Update](#): Initial guidance was issued. Please also see “Cross-cutting guidance,” and note that the prevailing wage and apprenticeship guidance applies to 45J.
  - [Notice 2023-24](#) (Issued March 9, 2023; provides guidance related to computing the value of the credit, the amount of unutilized national megawatt capacity limitation, procedures for taxpayers to apply for allocations of unutilized national megawatt capacity limitation with respect to facilities that the Department of Energy previously certified as “advanced nuclear facilities”)

#### Cross-Cutting Guidance: Tax Credit Monetization and Prevailing Wage and Apprenticeship

- **Transferability and elective pay**
  - [Overall Implementation Update](#): Final regulations issued for transferability, direct pay, pre-filing registration requirements, and specific applications for the Advanced Manufacturing Investment Credit. [Pre-filing registration tool](#) is available. Transferability and elective pay apply to the following credits: 45, 45Y, 48, 48E, 45U, 45Q, 45V, 45Z, 45X, 48C, 30C. Please further note that Code Section 45W is eligible for transferability but not direct pay.
    - [Final Regulation](#) (Published December 4, 2024; includes direct pay rules applicable to Section 48 Investment Tax Credit)
    - [Final Regulation](#): (Published November 20, 2024; provides rules applicable to Section 6417 Election to Exclude Certain Unincorporated Organizations Owned by Applicable Entities from Application of the Rules on Partners and Partnerships)
    - [Revenue Procedure 2024-39](#) (Issued October 11, 2024; provides tax return filing extensions for certain applicable entities with respect to direct pay election)
    - [Final Regulation](#) (Published April 30, 2024; Section 6418, Transfer of Certain Credits)
    - [Final Regulation](#) (Published March 11, 2024; Section 6417, Elective Pay)
    - [Final Regulation](#) (Published March 11, 2024; Section 48D, Elective Payment of Advanced Manufacturing Investment Credit)
    - [Proposed Regulation](#) (Published March 11, 2024; Section 6417/Section 761, Elective Pay)
    - [Proposed Regulation](#) (Published June 21, 2023; Section 6417, Elective Pay)
    - [Proposed Regulation](#) (Published June 21, 2023; Section 6418, Transfer of Certain Credits)
    - [Proposed Regulation](#) (Published June 21, 2023; Elective Payment of Advanced Manufacturing Investment Credit)
    - [Proposed Regulation](#) (Published June 21, 2023; Pre-Filing Registration Requirements for Certain Tax Credit Elections)
    - [Proposed Regulation](#) (Published March 23, 2023; Elective Payment of Advanced Manufacturing Investment Credit)
- **Prevailing wage and apprenticeship**

- Overall Implementation Status: While this guidance applies for the purposes of determining a bonus credit under Code Sections 45, 45Y, 48, and 48E as noted in this Implementation Tracker (ITC/PTC and their technology-neutral counterparts), the guidance also applies to the following credits: 30C, 45L, 45Q, 45U, 45V, 45Z, 48C, and 179D. Please refer to the ITC/PTC section for further information on prevailing wage and apprenticeship guidance.

#### **Additional Governmental Resources**

- For a full list of all IRS resources on these topics, please visit the IRS's Inflation Reduction Act of 2022 page here: <https://www.irs.gov/inflation-reduction-act-of-2022>.
- For the latest Treasury and IRS Guidance Priority List updates, please see here: <https://www.irs.gov/privacy-disclosure/priority-guidance-plan>.