



Federal Funding Opportunities for Communities in the TVA Service Region

Navigating the Bipartisan Infrastructure Law and Inflation Reduction Act

Monthly Update - July 8, 2023



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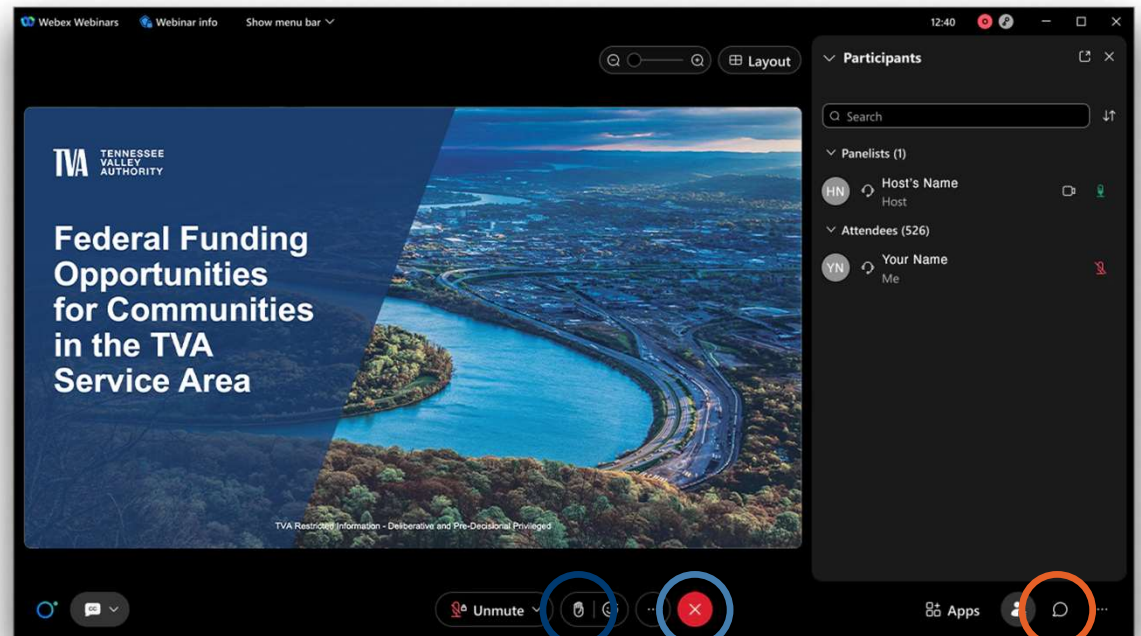
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Support to Accelerate Progress & Overcome Challenges

FOCUS AREAS	RESOURCES																
<table><tr><td data-bbox="98 545 468 695"><hr/></td><td data-bbox="468 545 999 695"><hr/></td></tr><tr><td data-bbox="98 695 468 844">Broadband & Digital Literacy</td><td data-bbox="468 695 999 844">Economic Empowerment</td></tr><tr><td data-bbox="98 844 468 993"><hr/></td><td data-bbox="468 844 999 993"><hr/></td></tr><tr><td data-bbox="98 993 468 1193">Energy & Environmental Justice</td><td data-bbox="468 993 999 1193">Enhanced Community Resiliency</td></tr></table>	 <hr/>	 <hr/>	Broadband & Digital Literacy	Economic Empowerment	 <hr/>	 <hr/>	Energy & Environmental Justice	Enhanced Community Resiliency	<table><tr><td data-bbox="999 545 1404 695"><hr/></td><td data-bbox="1404 545 2016 695"><hr/></td></tr><tr><td data-bbox="999 695 1404 844">Off-the-Shelf Guides and Tools</td><td data-bbox="1404 695 2016 844">Tailored Support and Success Coaching</td></tr><tr><td data-bbox="999 844 1404 993"><hr/></td><td data-bbox="1404 844 2016 993"><hr/></td></tr><tr><td data-bbox="999 993 1404 1193">Pilot Project Funding</td><td data-bbox="1404 993 2016 1193">Network and Partnership Building</td></tr></table>	 <hr/>	 <hr/>	Off-the-Shelf Guides and Tools	Tailored Support and Success Coaching	 <hr/>	 <hr/>	Pilot Project Funding	Network and Partnership Building
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Pilot Project Funding	Network and Partnership Building																

Connected Communities are towns, main streets, neighborhoods and cities using tech- and data-related solutions to address community challenges while preparing for a modern energy system.

Contents

1

Webinar Agenda & Content

- What are the **Bipartisan Infrastructure Law (BIL)** and **Inflation Reduction Act (IRA)**?
 - What are **upcoming federal funding opportunities** in the TVA service region?
 - Who do stakeholders connect with to facilitate **TVA-coordinated federal funding opportunities** and/or programs?
 - **Community Networking**: Connecting with other stakeholders
 - Open Forum: **Question & Answer**
-

2

Appendix: Federal Funding Resources

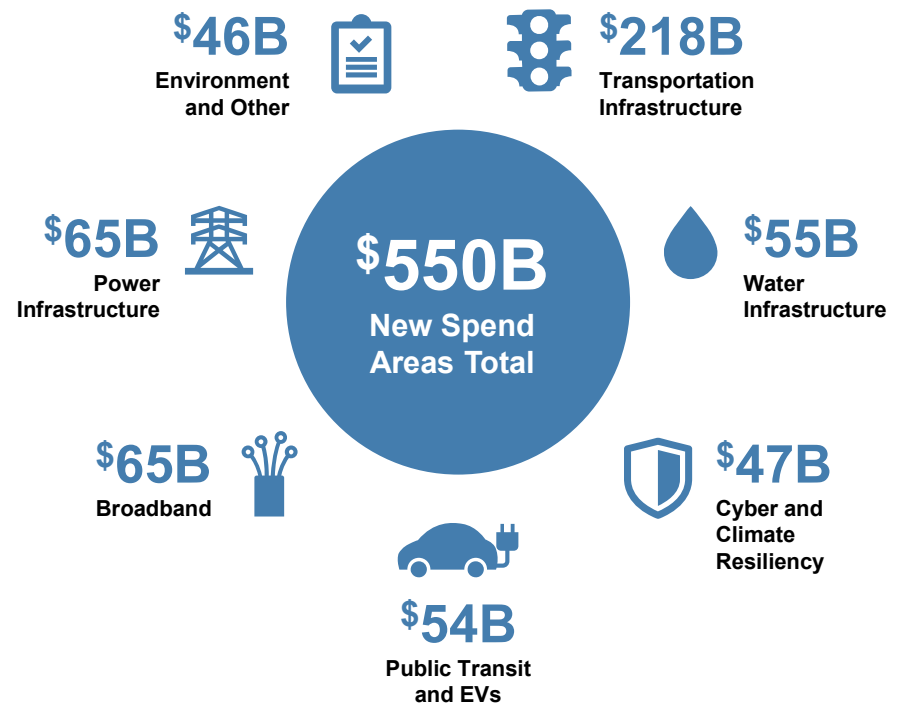
- Federal Funding Considerations
- Inflation Reduction Act Tax Credit Overview
- Current IRS and Treasury Guidance
- Inflation Reduction Act Tax Credit Summaries

Bipartisan Infrastructure Law (BIL) Funding Overview

The Bipartisan Infrastructure Law (BIL) contains a total of \$1.2 trillion between the existing \$650 billion in infrastructure legislative authorizations and \$550 billion in new program spending.

Opportunities in the BIL will fund:

- Grants to enhance the resilience of the electric grid infrastructure against disruptive events, such as extreme weather and cyber attacks
- Expansion of the Smart Grid Investment Matching Grant Program, focusing on investments that improve the flexibility of the grid
- Upgrading existing transmission and distribution systems and other actions, like deploying energy storage
- Clean energy demonstrations and research hubs

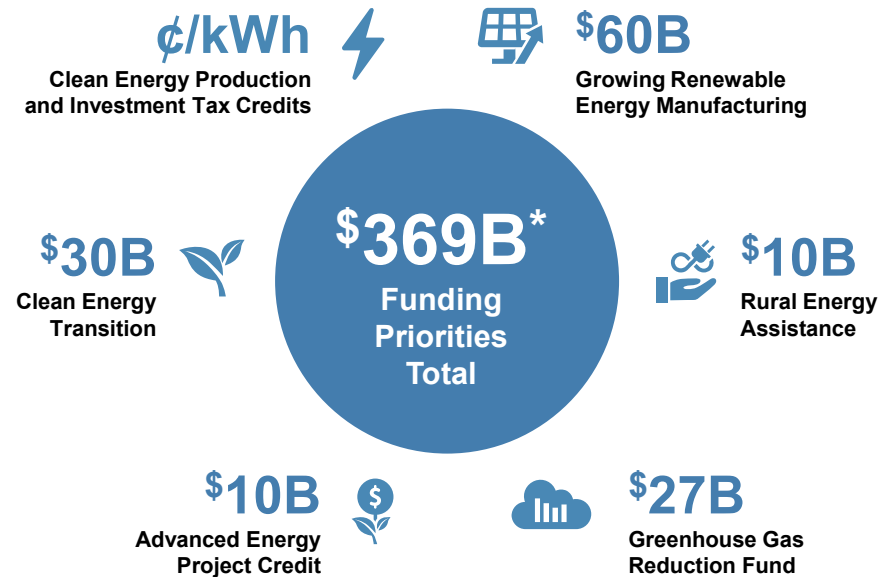


Inflation Reduction Act (IRA) Funding Overview

The Inflation Reduction Act (IRA) contains \$369 billion in new program spending in key strategic areas.

Details for each priority:

Growing Renewable Energy Manufacturing	Multiple efforts to on-shore clean energy manufacturing in the U.S. across the full supply chain of clean energy and transportation technologies.
Clean Energy Transition	Targeted grant and loan programs for states and electric utilities to accelerate the transition to clean electricity.
Greenhouse Gas Reduction Fund	Competitive grants aimed at enabling low-income and disadvantaged communities to deploy or benefit from zero-emission technologies, including distributed technologies, and to carry out other greenhouse gas emission reduction activities.
Rural Energy Assistance	For loans and grants to eligible entities to purchase renewable energy, renewable energy systems, zero-emission systems and carbon capture and storage systems.
Advanced Energy Project Credit	Additional allocations of the qualified advanced energy manufacturing tax credit, which is a 30% tax credit for investments in projects that reequip, expand or establish certain energy manufacturing facilities.
Clean Energy Production and Investment Tax Credits	Extends the existing production and investment tax credits for applicable renewable energy sources and replaces it with new, tech-neutral credits in 2025.



*Estimated total investment in Energy Security and Climate Change as of August 11, 2022 by Joint Committee on Taxation

Updates and Upcoming BIL & IRA Funding Opportunities

- ➔ On July 18, DOE [amended](#) eligibility within the \$125M FOA for the **Battery Recycling Research, Development, and Demonstrations** Program. Eligibility varies by Topic Areas, which include Consumer Participation, the Economics of Recycling Consumer Electronics Batteries, State and Local Programs, and Retailer Programs. Concept papers are due August 17, 2023, with full applications due November 29, 2023.
- ➔ On July 18, DOE [announced](#) 67 winners in the first phase of the \$6.7M Energizing Rural Communities Prize, which is a component of the **Energy Improvements in Rural or Remote Areas** Program. Additional awards for the full \$300 million FOA are expected to be made in November 2023 for cities, towns, and unincorporated areas with populations of not more than 10,000 inhabitants.
- ➔ On July 20, DOE [announced](#) 3 states, 3 tribal nations, and an Alaskan Native Corporation as the fourth cohort to receive \$29.9 million in Grid Resilience State and Tribal Formula Grants, a component of the **Preventing Outages and Enhancing the Resilience of the Electric Grid** Program. To date, a total of \$354 million has been distributed to 23 states, DC, and 12 tribal entities. Additional cohorts of awards are expected to be announced on a rolling basis.
- ➔ On July 21, DOE [released](#) a \$20 million FOA for the **Solar Energy Projects** Program covering Materials, Operation, and Recycling of Photovoltaics (MORE PV). Eligible applicants include institutions of higher education, for-profit entities, non-profit entities, and state, local, and tribal governments. Letters of Intent are due September 6, 2023. Concept papers are due September 13, 2023, with full applications due November 28, 2023.
- ➔ On July 31, USDA will [open](#) applications for the \$9.7 billion **Empowering Rural America (New ERA)** Program. Eligible applicants include rural electric cooperatives only. The deadline for Letters of Intent has been extended to September 15, 2023, with full applications being accepted on an invite-only basis following the evaluation of LOIs.
- ➔ On July 14, EPA [released](#) a NOFO for the \$14 billion National Clean Investment Fund and the \$6 billion Clean Communities Investment Accelerator, which are components of the **Greenhouse Gas Reduction Fund**. Under both programs, prime recipients and applicants will be eligible nonprofits, with specific requirements outlined in the NOFO. Applications for both programs must be submitted to the EPA by October 12, 2023.

➔ **Bipartisan Infrastructure Law** ➔ **Inflation Reduction Act** ➔ **Both**

Contact TVA Leads to discuss potential projects!

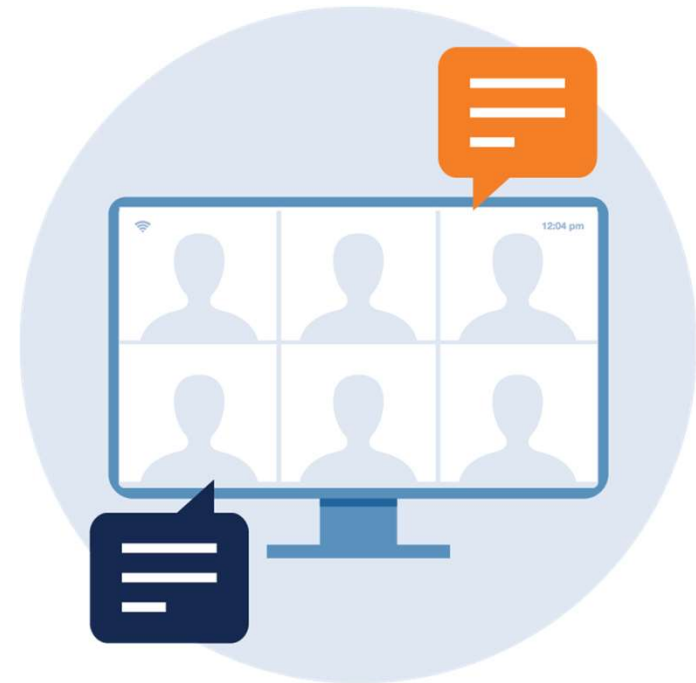
TVA Organization	TVA Point of Contact	Email	Subject Matter Expertise
Storage Integration	Scott Key	bskey@tva.gov	Energy storage, pumped hydro, compressed air storage, electrochemistry, batteries
Commercial Energy Solutions	Frank Rapley	fmrapley@tva.gov	Energy efficiency, energy education, industry, commercial & residential energy services, energy billing
Connected Communities	Georgia Caruthers	gmcaruthers@tva.gov	Community relations, pilot projects, digital services, healthy natural and built environment, community resiliency, economic opportunities
Electric Vehicle Evolution	Ryan Stanton	rkstanton@tva.gov	Electric vehicles (EVs), fast-charging EV network, charging stations, advanced batteries
Regional Grid Transformation	Jason Krupp	jakrupp@tva.gov	Advanced grid technologies, strategic technology deployment, energy affordability and resiliency, distributed and renewable energy systems
Regional Relations	<u>Regional Contacts</u>	Please refer to your regional contact!	Community relations, stakeholder engagement, stakeholder networking
TVA Energy Right	Ruchi Singhal	rgsinghal@tva.gov	Energy efficiency, business and industrial energy services

Community Networking

An opportunity to connect with other BIL & IRA stakeholders

Please Introduce Yourself

1. Name
2. Organization & Position
3. Historical BIL & IRA Pursuits
4. Federal Funding Interest



Open Forum: Question & Answer



Opportunity Eligibility

- Which BIL & IRA opportunities has your organization identified?
- How can TVA encourage federal funding pursuits?



Application Barriers

- Which application components have been the most challenging?
- How might TVA assist in removing application barriers?



Coordination

- How do you share your goals, expectations and progress with your partners and funders?
- How do you work with other organizations or agencies on similar or related issues?

Funding Opportunities Database

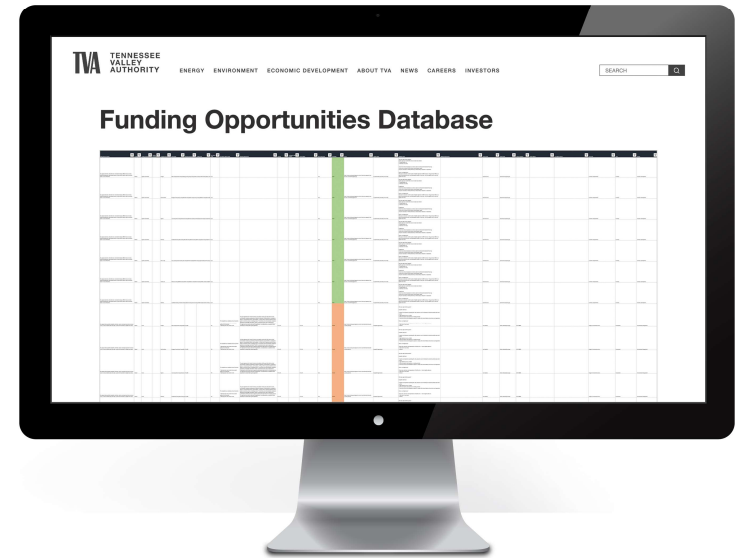


- Publicly available information about federal, state and local funding opportunities
- Includes a variety of opportunities related to broadband, clean energy and more
- The Connected Communities team can walk through the database with you to explore opportunities for your community

Email to request a walk through: connectedcommunities@tva.gov

- Database available on Connected Communities website

<https://www.tva.com/energy/technology-innovation/connected-communities/funding-opportunities-database>



Let's Stay Connected



Continue the Conversation

Contact Georgia Caruthers at gmcarruthers@tva.gov to learn more.



Join our Connected Communities Network

Visit the Connected Communities website tva.com/connectedcommunities and sign up to be part of the Connected Communities Network.

Appendix

Federal Funding Considerations

Questions to Ask Prior to Applying for Funding



Eligibility

Are you eligible to be a recipient or sub-recipient for this funding opportunity?



DEI Requirements

Does your project meet the criteria for alignment with the Justice40 Initiative?



Cost Share

If awarded funding, are you capable of providing the required cost share contribution?



Technical Expertise Required

Do you possess the necessary expertise to successfully complete the project upon receiving funding?



Community Benefits Planning

Are you prepared to engage with relevant communities, develop a community benefits plan and monitor the benefits of the project?



Timeline and Resources

Do you have sufficient time to prepare and submit a complete application for this funding opportunity?

Inflation Reduction Act Tax Credit Overview

Inflation Reduction Act (IRA) Tax Credits

Applicants can receive direct payments for IRA tax credits for current generation and investment.

TAX CREDITS

\$0.003 / kWh

base credit for
**renewable electricity
production activities**

6%

base credit
for **investment
activities**



+10%
bonus for
domestic
content



5x
multiplier
for wage
requirement



+10%
bonus for
energy
communities



+10%
bonus for
low-income
communities

Eligibility and Payment Details

Eligible production and investment activities

- Carbon-free energy production and investment
- Sustainable fuel and hydrogen
- Zero emission vehicle

Eligible construction start/end dates or in-service dates

- *Varies by credit*
 - Example: production credit - projects where construction begins before January 1, 2025. Credits vary based on construction start date and date in service.
 - Example: any nuclear facility placed in service before the enactment of IRA.

Direct payment of applicable credits under Section 13801

- TVA and other tax-exempt entities, such as rural electric cooperatives, state and local governments, will have access to refundable direct payment tax credits under the IRA.

Tax Credits Have Bonus Credit Opportunities*



Domestic Content

- Credit amounts can be increased by 10% if certain percentages of the manufactured content is domestic. These requirements increase from 2023 to 2027.



Wage Requirement

- In order to get the 5x multiplier, companies must pay prevailing wages and use apprentices for 10%-15% of the work.



Energy Communities

- By building in communities that have historically been involved in coal, oil or natural gas, this is a 10% bonus in PTC and ITC credits.



Low-Income Communities

- By building in low-income communities to foster job growth and development, companies can net another 10% increase in credits.

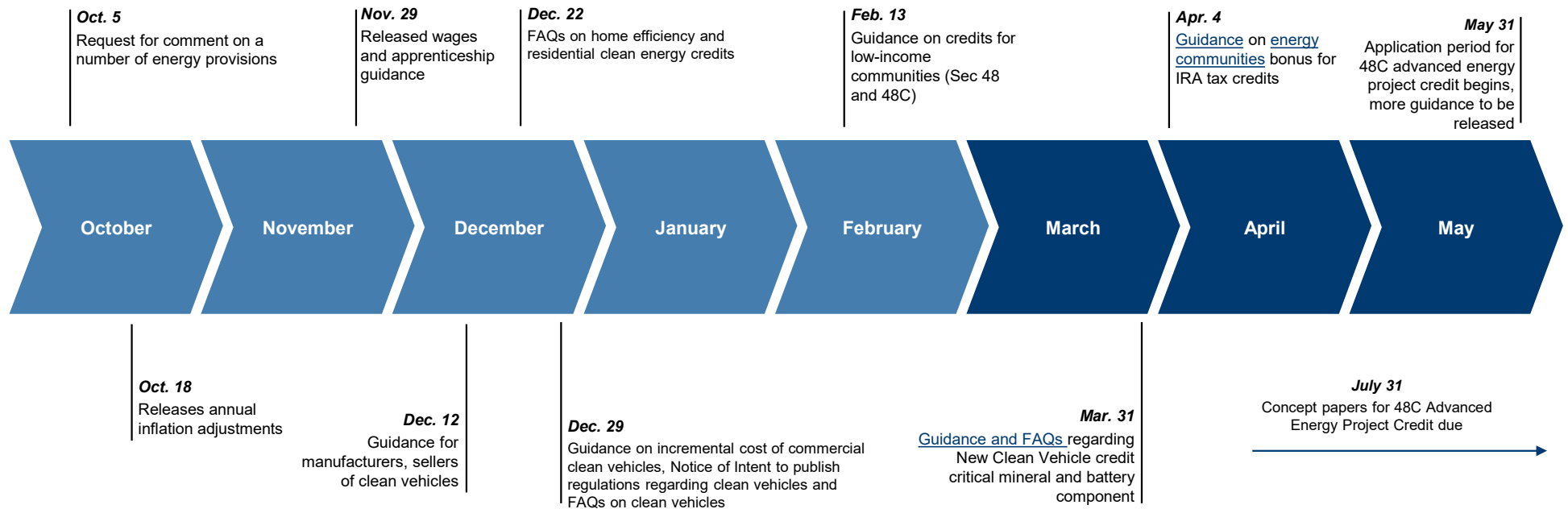
*Start Dates are January 1st of the year | End Dates are December 31st of the year

Current IRS and Treasury Guidance

UP TO DATE AS OF 4/18/2023

Anticipated Timeline for Further IRA Guidance

Little information exists regarding expected future release dates for additional guidance – all guidance must be released by August 2023.



Current Treasury Guidance

Guidance/Interim Guidance

- IR-2023-27, [IRS and Treasury provide guidance on the Qualifying Advanced Energy Project Credit](#)
- IR-2023-26, [Treasury and IRS provide guidance on energy projects for low-income communities](#)
- IR-2022-233, [Treasury, IRS issue guidance on the incremental cost for the Commercial Clean Vehicle Credit](#)
- IR-2022-232, [Treasury, IRS issue guidance on their intent to publish regulations regarding clean vehicles](#)
- IR-2022-229, [Treasury, IRS issue interim guidance on new corporate alternative minimum tax](#)
- IR-2022-228, [Treasury, IRS issue guidance on corporate stock repurchase excise tax in advance of forthcoming regulations](#)
- IR-2022-223, [Treasury, IRS issue guidance on new Sustainable Aviation Fuel Credit](#)
- IR-2022-218, [Treasury and IRS set out procedures for manufacturers, sellers of clean vehicles](#)
- IR-2022-208, [Treasury and IRS announce guidance on wage and apprenticeship requirements for enhanced credits/deductions](#)
- IR-2022-182, [IRS provides tax inflation adjustments for tax year 2023](#)

Frequently Asked Questions

- IR-2022-225, [IRS releases frequently asked questions about energy efficient home improvements and residential clean energy property credits](#)
- IR-2022-231, [IRS releases frequently asked questions about clean vehicles credits for new, previously owned and commercial clean vehicles](#)

Requests for Comment

- IR-2022-193, [IRS seeks comments on upcoming energy guidance](#)
- IR-2022-172, [IRS asks for comments on upcoming energy guidance](#)

Current Treasury Guidance

In October and November 2022, IRS released requests for comment on energy provisions.

Requests for Comment on Energy Provisions

IR-2022-172:
(October 5, 2022)

- Credits for clean vehicles
- Energy security tax credits for manufacturing
- Incentive provisions for improving the energy efficiency of buildings
- Certain energy generation incentives
- Elective payment of applicable credits and transfer of credits
- Prevailing wage, apprenticeship, domestic content and energy communities' requirements
- Comments due November 5, 2022

IR-2022-193:
(November 3, 2022)

- Qualified commercial clean vehicles provisions and the alternative fuel vehicle refueling property
- Credits for carbon capture
- Credit for production of clean hydrogen and the clean fuel production credit
- Comments due December 3, 2022

Current Treasury Guidance

In December 2022, IRS released FAQs regarding residential and clean vehicle credits.

New, Previously Owned and Commercial Clean Vehicle Credits (December 29, 2022)

Eligibility Rules, Income and Price Limitations and Timing for New Clean Vehicle Credit

- Eligible vehicle specs, list of qualifying vehicles, amount of the credit, manufacturer requirements, eligible income levels, eligible MRSP amounts
- New rules begin August 16, 2022, with more taking effect on January 1, 2023
- More guidance on critical mineral and battery component provisions needed

Eligibility Rules, Income and Price Limitations and Timing for Previously Owned Clean Vehicle Credit

- Eligible vehicle specs, list of qualifying vehicles, amount of the credit, manufacturer requirements, eligible income levels, eligible MRSP amounts
- New rules begin August 16, 2022, with more taking effect on January 1, 2023
- Business entities not eligible

Commercial Clean Vehicles

- Eligible vehicle specs, list of qualifying manufacturers, amount of the credit, guidance on calculating “incremental cost,” and other qualifications
 - Value of the credit is equal to the lesser of 30% of the taxpayers’ tax basis in the vehicle or the incremental cost of the vehicle
 - Credit is limited to \$7,500 for vehicles with weight equal or less than 14,000 lbs, and \$40,000 for all other vehicles

[Source: IRS Fact Sheet](#)

Current Treasury Guidance

In December 2022, IRS released FAQs regarding residential and clean vehicle credits.

Energy Efficient Home Improvements & Residential Clean Energy Property Credits (December 22, 2022)

Energy Efficient Home Improvement Credit: Qualifying Expenditures and Credit Amount

- Types of home improvement eligible for credit, including building envelope, energy audits, residential energy property (HVAC, panels) and heat pumps
- Maximum total credit amount of \$3,200

Residential Clean Energy Property Credit: Qualifying Expenditures and Credit Amount

- Types of expenditures eligible for credit, including solar, solar water heaters, fuel cells, wind turbines, geothermal heat pumps and battery storage
- No maximum total credit amount, except for fuel cells (\$500 per ½ kW capacity, \$1,667 per ½ kW for multi-person dwellings)

Efficiency Requirements, Labor Costs and Timing of Credits

- Efficiency requirements for all eligible improvements for both credits
- Taxpayers may include labor costs for both credits under differing conditions for each
- Taxpayers may only roll forward unused residential clean energy credits, not energy efficiency credits

General Questions & Examples

- How residential credits interact with utility and state rebates and incentives
 - Public utilities – utility subsidies and rebates represent a reduction in cost of purchase or installation of equipment, while payments for excess electricity do not affect credit qualification or amounts

[Source: IRS Fact Sheet](#)

Current Treasury Guidance

Guidance and Interim Guidance for Clean Vehicles

IR-2022-233:

[Treasury, IRS issue guidance on the incremental cost for the Commercial Clean Vehicle Credit](#)

- Results of DOE Analysis show that the modeled incremental cost of all street vehicles, other than compact car PHEVs, that have a gross vehicle weight rating of less than 14,000 pounds will be greater than \$7,500 in calendar year 2023 ---- amount of the credit will always default to \$7,500 for vehicles less than 14,000 lbs.
- DOE provides an incremental cost analysis of current costs for several representative classes of street vehicles with a gross vehicle weight rating of 14,000 pounds or more in calendar year 2023. The Treasury and the IRS will accept a taxpayer's use of the incremental cost published in the DOE Analysis for the appropriate class of street vehicle to calculate the § 45W credit amount.

IR-2022-232:

[Treasury, IRS issue guidance on their intent to publish regulations regarding clean vehicles](#)

- Guidance includes definitions of the following terms in section 30D: Final Assembly; North America; Manufacturer's Suggested Retail Price; Vehicle Classifications for vans, sport utility vehicles, pickup trucks and other vehicles; and Placed in Service.
- Forthcoming proposed regulations will provide guidance regarding the critical mineral and battery component requirement.

IR-2022-218:

[Treasury and IRS set out procedures for manufacturers, sellers of clean vehicles](#)

- Details given on how to enter into a written agreement with the IRS and how to provide periodic written reports containing specified information related to each clean vehicle manufactured.
- This revenue procedure also provides the procedures for persons selling vehicles to report specified information to the IRS for a vehicle to be eligible for the credit for new or previously owned clean vehicles

Current Treasury Guidance

Guidance and Interim Guidance for Tax Credits and Credit Bonuses

IR-2022-223:

(December 19, 2022)

[Treasury, IRS issue guidance on new Sustainable Aviation Fuel Credit](#)

- To qualify for the credit, the sustainable aviation fuel must have a minimum reduction of 50% in lifecycle greenhouse gas emissions. Additionally, there is a supplemental credit of one cent for each percent that the reduction exceeds 50%. The notice provides a safe harbor for calculating the lifecycle greenhouse gas emissions reduction percentage.
- The notice explains that a claimant may choose how to claim the Sustainable Aviation Fuel Credit. The first is through the excise tax system. The second is a general business credit that is nonrefundable and must be included in income. Notice 2023-06 also clarifies what constitutes sustainable aviation fuel and a qualified mixture.

IR-2022-208:

[Treasury and IRS announce guidance on wage and apprenticeship requirements for enhanced credits/deductions](#)

- Included in this guidance are details around how prevailing wages are determined, including cases where available data is incomplete; how the apprenticeship requirements are met, including through the “good faith exception; general reporting requirements for both prevailing wage and apprenticeship; and how to establish the beginning of construction for grandfathering purposes

Current Treasury Guidance

Guidance and Interim Guidance on General Tax Provisions

IR-2022-229:

[Treasury, IRS issue interim guidance on new corporate alternative minimum tax](#)

- The IRA created the Corporate Alternative Minimum Tax (CAMT), which imposes a 15% minimum tax on the adjusted financial statement income of large corporations for taxable years beginning after December 31, 2022. The CAMT generally applies to large corporations with average annual financial statement income exceeding \$1 billion. This provides details and certainty ahead of new regulations.

IR-2022-228:

(December 27, 2022)

[Treasury, IRS issue guidance on corporate stock repurchase excise tax in advance of forthcoming regulations](#)

- IRA imposes a 1% excise tax on the aggregate fair market value of stock repurchased by certain corporations during the taxable year, subject to adjustments. This guidance provides details and certainty to taxpayers ahead of new regulations.

IR-2022-182:

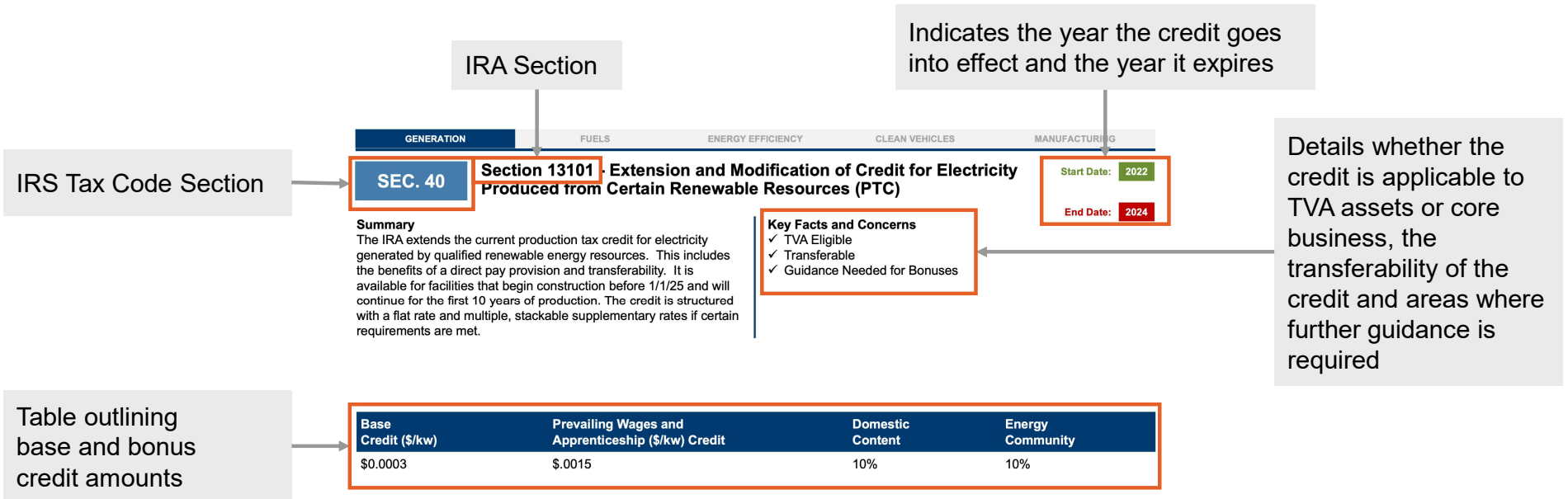
[IRS provides tax inflation adjustments for tax year 2023](#)

- October 18, 2022 – Includes multiple changes, relevant are the Commercial Building Efficiency tax deduction adjustments.
- The applicable dollar value used to determine the maximum allowance of the deduction under § 179D(b)(2) is \$0.54 increased by \$0.02 (but not above \$1.07) for each percentage point by which the total annual energy and power costs for the building are certified to be reduced by a percentage greater than 25 percent. For taxable years beginning in 2023, the applicable dollar value used to determine the increased deduction amount for certain property under § 179D(b)(3) is \$2.68 increased by \$0.11 (but not above \$5.36) for each percentage point by which the total annual energy and power costs.

Inflation Reduction Act Tax Credit Summaries

Disclaimer: The following slides are high-level summaries. They do not contain all the details of each credit. Please consult IRA Tax Credit Summaries.

Tax Credit Summaries Content Key



28

Updated 10/17/2022 Summary slide; detailed tax credit reports available
TVA Restricted Information - Deliberative and Pre-Decisional Privileged

Date information was last updated

TVA TENNESSEE VALLEY AUTHORITY

Credits are Organized Into Five Categories

Categories	Description
Generation	Credits used for renewable generation facilities e.g., hydrogen, electricity etc.
Fuels	Credits for production of sustainable fuels such as biodiesel and hydrogen
Energy Efficiency	Credits for increasing energy efficiency measures
Clean Vehicles	Credits for clean EVs and fuel cell vehicles
Manufacturing	Credits for new facilities and energy products

GENERATION	FUELS	ENERGY EFFICIENCY	CLEAN VEHICLES	MANUFACTURING
SEC. 40	Section 13101 - Extension and Modification of Credit for Electricity Produced from Certain Renewable Resources (PTC)			Start Date: 2022
<p>Summary The IRA extends the current production tax credit for electricity generated by qualified renewable energy resources. This includes the benefits of a direct pay provision and transferability. It is available for facilities that begin construction before 1/1/25 and will continue for the first 10 years of production. The credit is structured with a flat rate and multiple, stackable supplementary rates if certain requirements are met.</p>			<p>Key Facts and Concerns</p> <ul style="list-style-type: none"> ✓ TVA Eligible ✓ Transferable ✓ Guidance Needed for Bonuses 	
			End Date: 2024	
Base Credit (\$/kw)	Prevailing Wages and Apprenticeship (\$/kw) Credit	Domestic Content	Energy Community	
\$0.0003	\$.0015	10%	10%	

SEC. 40

Section 13101 - Extension and Modification of Credit for Electricity Produced from Certain Renewable Resources (PTC)

Start Date: 2022

End Date: 2024

Summary

The IRA extends the current production tax credit for electricity generated by qualified renewable energy resources. This includes the benefits of a direct pay provision and transferability. It is available for facilities that begin construction before 1/1/25 and will continue for the first 10 years of production. The credit is structured with a flat rate and multiple, stackable supplementary rates if certain requirements are met.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ Guidance needed for bonuses

Base Credit (\$/kw)	Prevailing Wages and Apprenticeship (\$/kw) Credit	Domestic Content	Energy Community
\$0.0003	\$0.0015	10%	10%

SEC. 40

Section 13102 - Extension and Modification of Energy Credit (ITC)

Start Date: 2022

End Date: 2024

Summary

The IRA extends the current investment tax credit for construction, rehabilitation and improvements of qualified renewable energy generation equipment or property. This includes the benefits of a direct pay provision and transferability. It is available for facilities that begin construction before 1/1/25. The credit is structured with a flat rate and multiple, stackable supplementary rates if certain requirements are met.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ Guidance needed for bonuses
- ✓ Adds energy storage, qualified biogas and microgrid controllers as assets eligible for credits

Base Credit	Prevailing Wages and Apprenticeship (\$/kw) Credit	Domestic Content	Energy Community
6% of capital costs for select energy property, 2% for all other energy property	30% of capital costs	10%	10%

SEC. 48

Section 13103 - Increase in Energy Credit for Solar and Wind Facilities Placed in Service in Connection with Low-Income Communities (ITC)

Start Date: 2023

End Date: 2024

Summary

The IRA adds to the current Energy Credit including additional credits for qualifying solar and wind credits placed in service in low-income communities or on Tribal land. This includes a direct pay provision. There is an annual capacity limitation of 1.8GW of eligible projects for 2023 and 2024 that can qualify for this bonus. The credit is structured with a flat rate and stackable, supplementary rates. Both the flat and supplementary rates are stackable with other qualified projects.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ IRS [guidance](#) released 2/13/2023, which includes:
 - General and facility eligibility requirements
 - Program design and goals
 - Application review process
 - Proposed timeline for application periods in 2023

Low-Income or Tribal Lands

10% of capital costs

Low-income Residential or Economic Benefit Project

20% of capital costs

SEC. 49

Section 13104 - Extension and Modification of Credit for Carbon Oxide Sequestration

Start Date: 2023

Summary

The IRA extends access to the credit for more carbon-emitting projects by lowering the emission threshold requirements. This includes direct pay and transfer options. The credit is eligible for the 12-year period after a facility is placed in service provided construction is started prior to 12/31/32. The credit is structured with flat and supplementary rate(s) based upon the type of capture and if requirements are met.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ Guidance needed on technology requirements

End Date: 2032

Type of Capture	Base Credit (\$ per metric ton)	Prevailing Wages and Apprenticeship Requirements (\$ per metric ton)
Geological Storage	\$17	\$85
Captured and Utilized	\$12	\$60
Enhanced Direct Air Capture (DAC) & Storage	\$36	\$180
DAC Utilized	\$26	\$130

Updated 10/17/2022 | Summary slide; detailed tax credit reports available

SEC. 45U

Section 13105 - Zero-Emission Nuclear Power Production Credit

Summary

The IRA created a new production tax credit focused on preserving the existing fleet of nuclear plants. Each kWh of electricity sold between 2024 and 2033 from an existing and in-service, qualified nuclear facility is eligible. This includes the direct pay and transfer options. The credit is structured with a flat rate and supplementary rates if requirements are met. There is a reduction amount applied if the price of electricity increases.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ New credit – guidance needed
- ✓ Guidance needed on bonuses

Start Date: 2024

End Date: 2032

Base Credit (\$/kw)	Prevailing Wages and Apprenticeship (\$/kw) Credit	Domestic Content	Energy Community
\$0.0003	\$.0015	10%	10%

SEC. 45Y

Section 13701 - Clean Electricity Production Credit (PTC)

Summary

The IRA created a new production tax credit for clean energy sold from a new, domestic facility emitting negative or zero GHG emissions. Clean electricity can be sold for a period of 10 years beginning no earlier than 2025 through 2032. This includes direct pay and transfer options. The domestic content credit phases out by year. It also adjusts based on the type of facility. This credit is structured with a flat rate and stackable, supplementary rates if certain requirements are met.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ New credit – guidance needed
- ✓ Guidance on bonuses needed
- ✓ Treasury guidance on zero emissions technology
- ✓ Phase out triggers

Start Date: 2025

End Date: 2032

Base Credit (\$/kw)	Prevailing Wages and Apprenticeship (\$/kw) Credit	Domestic Content	Energy Community
\$0.0003	\$0.0015	10%	10%

SEC. 48E

Section 13702 - Clean Electricity Investment Credit (ITC)

Summary

The IRA created a new investment tax credit for clean energy sold from a new, domestic facility emitting negative or zero GHG emissions. Clean electricity can be sold for a period of 10 years beginning no earlier than 2025 through 2032. This includes the direct pay and transfer options. The domestic content credit phases out by year. It also adjusts based upon the type of facility. This credit is structured with a flat rate and stackable, supplementary rates if certain requirements are met.

Key Facts and Concerns

- ✓ TVA Eligible
- ✓ Transferable
- ✓ New credit – guidance needed
- ✓ Guidance on bonuses needed
- ✓ Phase out triggers

Start Date: 2025

End Date: 2032

Base Credit	Prevailing Wages and Apprenticeship Credit	Domestic Content	Energy Community
6% of capital costs	30% of capital costs	10%	10%

SEC. 48C

Section 13501 - Extension of the Advanced Energy Project Credit

Start Date: 2023

End Date: N/A

Summary

The IRA extends the current credit, expanding the definition of qualifying advanced energy projects to allow broader participation. 48C is a credit for investment in industrial or manufacturing facilities producing or recycling energy technology. This includes direct pay and transfer options. This credit is structured with a flat rate and supplementary rate if certain requirements are met. This credit is similar to a grant in that there is a maximum amount of funding available. When funds are exhausted, no additional credits are accepted.

Key Facts and Concerns

- ✓ Transferable
- ✓ \$10 billion in credits allocated, \$4 billion of which for low-income communities
- ✓ IRS [guidance](#) released 2/13/23:
 - \$4 billion 1st allocation round, with \$1.6 billion for projects in energy communities
 - Definitions of qualifying projects, procedures for allocating credits
 - Concept papers due April 14th

Type	Base Credit	Prevailing Wages and Apprenticeship Credit
Qualifying Advanced Energy Project Credit	\$6% for capital cost	30% for capital cost

SEC. 45V

Section 13204 - Clean Hydrogen

Start Date: 2023

Summary

The IRA creates a new tax credit for hydrogen producers based upon the facility's GHG emissions. They can receive a production tax credit (PTC) or investment tax credit (ITC) for a 10-year period of clean hydrogen production if construction starts before 1/1/32. This includes direct pay and transfer options. The credit is structured on a sliding scale rate.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ Transferable
- ✓ New credit – guidance needed
- ✓ Guidance needed on calculating lifecycle analysis (LCA) via Greenhouse Gases, Regulated Emissions and Energy Use in Technologies (GREET) Model

End Date: 2032

Emissions Threshold Based on LCA (kg CO2/kg H2)	Tax Credit (\$ per kg)	Prevailing Wages and Apprenticeship Credit (\$ per gal)	Treat Production Facility as Energy Property
<.45	\$0.60	\$3.00	6%
<1.5	\$0.20	\$1.00	2%
<2.5	\$0.15	\$0.75	1.5%
<4	\$0.12	\$0.60	1.2%

Updated 10/17/2022 | Summary slide; detailed tax credit reports available

SEC. 25C**Section 13301 - Extension, Increase, and Modifications of Nonbusiness Energy Property Credits**

Start Date: 2022

Summary

The IRA revives the former investment tax credit, significantly empowering the homeowner. The new language expands cost coverage for eligible energy-efficient residential improvements and energy property from a per-lifetime basis to an annual basis. The credit is structured as a percentage of total cost with a capped annual amount and will expire 12/31/2032. Total credits are limited up to a certain dollar amount.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ Guidance needed for performance requirements

End Date: 2032

Type	Annual Credit Value	Performance Requirement	Other Limitations
Homeowner Improvements	30% of eligible purchases maxed at \$1,200 with an exception of \$2,000 for heat pumps and biomass stoves	<ul style="list-style-type: none"> • IECC if in building envelope • CEE for equipment • ENERGY STAR most efficient for windows/doors 	<ul style="list-style-type: none"> • \$150 - Home Energy Audit; • \$250/\$500 - Exterior doors- (Individually/aggregate); • \$600 - Qualified energy efficiency improvements or residential energy property

Updated 10/17/2022 | Summary slide; detailed tax credit reports available

SEC. 25D**Section 13302 - Residential Clean Energy Credit**Start Date: **2022****Summary**

The IRA extended and expanded cost coverage of the current investment tax credit for installation of qualifying clean energy systems used to produce electricity, heat water or regulate temperature in residential properties. This credit is structured as a total percentage of cost and will expire 12/31/2034. The credit phases down, reducing over time.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ IRS [FAQs](#) released on 12/22/22:
 - Information on eligible expenditures
 - Examples of how credit limitations work

End Date: **2032**

Credit Rate	Year
30%	If placed in service after 12/31/21 and before 1/1/33
26%	If placed in service after 12/31/32 and before 1/1/34
22%	If placed in service after 12/31/33 and before 1/1/35

SEC. 179D**Section 13303 - Energy Efficient Commercial Buildings Deduction**Permanent
starting in:

2022

Summary

The IRA makes permanent the credit to owners or designers of commercial buildings or systems that significantly reduce energy use in comparison to minimum ASHRAE 90.1 standards. This credit is structured with a flat and supplementary rate. The supplementary rate is capped to a set amount.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ New credit – guidance needed
- ✓ Guidance needed for bonuses

Type	Credit Value (\$/sq. foot)	Prevailing Wages and Apprenticeship(\$/sq foot)	Supplemental Credit if Meeting Performance Requirements
Commercial Buildings	\$0.50	\$2.50	Exceed latest DOE-determine AHSRAE 90.1 by a minimum of 25% to get base value. After that, each percentage improvement up to 50% is a 10-cent increase.

SEC. 45L**Section 13304 - Extension, Increase, and Modifications of New Energy Efficiency Home Credit**

Start Date: 2022

Summary

The IRA retroactively extends the homebuilder credit, incentivizing reduced energy consumption in newly constructed single-family, manufactured and multi-family residences by offering a per dwelling tax credit. The credit amount was increased and new criteria for energy efficiency were added. The credit is structured with flat rate and supplementary rate and will expire 12/31/2032. The supplementary rate is limited to a set dollar amount.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ Transferable
- ✓ Guidance needed for performance requirements

End Date: 2032

Type	Credit Value – Energy Star (\$)	Credit Value – Zero Energy Ready Home (\$)	Prevailing Wages and Apprenticeship Credit (\$/sq foot)
Single Family, Manufactured Home	\$2,500	\$5,000	N/A
Multi-Family	\$500/unit	\$1,000/unit	\$2,500/unit

SEC. 30D**Section 13401 - Electric Vehicle (EV) and Fuel Cell Electric Vehicle (FCEV) Tax Credit**

Start Date: 2023

Summary

The IRA extends the current electric and fuel cell vehicle tax credit through 2032. Beginning in 2023, there is no longer a per-manufacturer cap, but new MSRP and income caps will apply. Also, EVs will need to meet both critical mineral and battery component requirements to qualify for the maximum available credit. The credit is structured with two rates, limited to set dollar amounts

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ Guidance needed for critical minerals and battery components requirements
- ✓ IRS [FAQs](#) provide eligibility rules
- ✓ IRS [Guidance and FAQs](#) for critical mineral and battery components on 4/4/23
- ✓ IRS [guidance](#) released for manufacturers on 12/12/22, which includes:
 - How to enter an agreement with IRS
 - Reporting procedures for eligibility

End Date: 2032

Credit	Amount	Requirements
Critical materials	\$3,750	A specific portion of the value of the critical minerals for battery must be extracted or processed in North America and countries with which the US has a free-trade agreement. Starts at 40%, increases to 80% after 2026.
Battery components	\$3,750	A specific portion of the value of the battery's components are manufactured or assembled in North America. Starts at 50%, increasing to 100% of assembly after 2028. Minimum 7 kWh.

Updated 4/6/2023 | Summary slide; detailed tax credit reports available

SEC. 25E**Section 13402 - Credit for Previously Owned Clean Vehicles**

Start Date: 2023

Summary

The IRA creates a new tax credit for qualified commercial clean vehicles (EV and FCEV) purchased on or after 1/1/23 through 12/31/2032. The vehicle must be used for business purposes. This credit includes a direct pay option. The credit is structured as a percentage cost with a limit based upon vehicle weight.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ IRS [FAQs](#) provide eligibility rules, income and price limitations and details for claiming the credit

End Date: 2032

Credit**Amount**

Previously Owned Clean Vehicles

30% of vehicle purchase price; limited to \$4,000

SEC. 45W**Section - 13403 Qualified Commercial Clean Vehicles Sec. 45W**

Start Date: 2023

Summary

The IRA creates a new tax credit for qualified, previously-owned, clean vehicle (EV and FCEV) through 2032. There are restrictions on the sales price, battery capacity, buyer income and vehicle weight. Beginning in 2024, there will be an option to transfer the credit to a dealer. The credit is structured as a percentage of total cost with a capped amount.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ New credit
- ✓ IRS [FAQs](#) provide eligibility rules
- ✓ IRS [guidance](#) on incremental cost released on 12/29/22:
 - Incremental cost will not limit the credit amount for vehicles with a gross weight of less than 14,000 pounds and are placed in service in 2023

End Date: 2032

Credit	Amount	Requirements
Commercial Clean Credit	Lesser of 1) 30% of vehicle cost or 2) the incremental cost of the vehicle compared to a relative vehicle	1) Credits cannot exceed \$7,500 for vehicles weighing less than 14,000 pounds or \$40,000 for those over 14,000 pounds. 2) Battery capacity must be 15 kW or 7kW for vehicles less than 14,000 pounds.

SEC. 30C

Section 13404 - Alternative Fuel Refueling Property Credit

Start Date: 2023

Summary

The IRA extends the charging equipment credit through 2032. Beginning in 2023, they must be installed in low-income or non-urban census tracts. This includes the direct pay and transfer (to dealer) options. This credit is structured with flat rate per type of fueling station (residential or business) and a supplementary rate for business if certain requirements are met. Both credit types are limited to set amounts.

Key Facts and Concerns

- ✓ TVA eligible
- ✓ New credit – guidance needed
- ✓ Transferable

End Date: 2032

Credit	Amount	Prevailing Wages and Apprenticeship Requirements
Taxpayer Principal Residence	30% of cost limited to \$1,000	N/A
Business Property	6% limited to \$100,000	30%

SEC. 45X

Section 13502 - Advanced Manufacturing Production Credit

Start Date: 2023

Summary

The IRA creates a new credit for the domestic manufacturing of solar and wind components from 12/12/22 through 12/12/32. Its purpose is to incentivize building new, domestic facilities to support clean energy supply chains at a globally competitive scale. This includes the direct pay and transfer options. This credit is structured with various, stackable rates based upon the type of component.

Key Facts and Concerns

- ✓ Relevant to TVA stakeholders
- ✓ Transferable
- ✓ Phases out after 2029

End Date: 2029

Credit	Amount
Base Credit	<ul style="list-style-type: none"> • Solar: Based upon capacity, per kg or sq meters • Wind: Based on rated capacity of turbine • Inverters: Based upon the type of inverter • Battery components: Based upon capacity • Critical Minerals: 10% of production costs

*Includes phase out from 2030 onward

Updated 10/17/2022 | Summary slide; detailed tax credit reports available

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