



Clean Energy-Based Economic Development Working Group

Welcome! We'll begin shortly.

February 26, 2024



Agenda

- Welcome, Introductions, and Working Group Updates
 - Please update your Zoom square with your name, state, and organization
 - If you are new to the group, feel free to come off mute and introduce yourself
- Presentation: Clean Energy Tax Incentives in the IRA
 - Grace Henley, Tax Law and Policy Fellow, Tax Law Center at NYU Law
- Full Group Discussion
- Next Steps and Adjourn

Deep Dive Option 1: In-State Stakeholder Meetings

Objective: WG members host in-person roundtable meeting to engage critical decision-makers, policy leaders, and stakeholders in your states and regions on federal and state clean energy and climate funding, planning, and implementation.

May be most appropriate for: State Energy Offices and/or economic development partners in need of broad alignment with key stakeholders on state and federal funding and incentive opportunities.

Content: Agendas will be co-developed with the host WG members, and will likely cover such topics as: the potential local and state economic development benefits of IJA and IRA funding, discussions on the potential challenges of pursuing and implementing the funds, roles and responsibilities of various key stakeholders, and near-term action items.

Host: Ideally, the "hosts" of each meeting will include both the State Energy and economic development agency or organization(s); aiming for spring/summer 2024 execution.

Benefits: NASEO/IEDC can assist by brainstorming and refining agenda topics, identifying and recruiting speakers, sponsoring or offsetting meeting costs, and participating in and supporting meeting , and facilitating next steps and action items.

Next steps If interested, please contact sfazeli@naseo.org and glowe@naseo.org by **March 15** so we can set up a preliminary discussion to learn about your interest areas, key partners, and key audiences.

Deep Dive Option 2: Facilitated Action Planning

<i>Objective:</i>	NASEO and IEDC host small group, virtual meetings to help WG members prioritize federal funding opportunities, develop project and partnership ideas, and organize additional stakeholders in the development of applications and programs.
<i>May be most appropriate for:</i>	WG members with specific objectives in terms of federal funding, incentives, and programs, but with a need for outside coordination and brainstorming from NASEO and IEDC.
<i>Content:</i>	Conversations will be customized to meeting WG member needs, with NASEO/IEDC assisting with additional research and/or connections to experts.
<i>Next steps:</i>	If interested, please contact sfazeli@naseo.org and glowe@naseo.org so we can set up a preliminary discussion to learn about your interest areas, key partners, and key audiences.

Introducing Grace Henley, Tax Law and Policy Fellow

Grace Henley is a Tax Law and Policy Fellow at the Tax Law Center at NYU Law. Before joining the Tax Law Center, she was an associate at WilmerHale where she worked on complex tax matters, advised tax-exempt organizations on obtaining and maintaining tax-exempt status, and gained experience with executive compensation matters including equity compensation, incentive plans, and golden parachute issues. Prior to law school, Henley worked for the International Rescue Committee, where she designed and operated economic development and food security programs for refugees and New Americans including writing and administering public and private grants and overseeing strategic development and monitoring and evaluation.

Henley holds a JD, with high honors, from the University of North Carolina School of Law and a BA in Political Science and Environmental Studies from the University of Vermont. During law school she served as Executive Editor of the North Carolina Law Review and interned with the North Carolina Office of the Solicitor General, the North Carolina Court of Appeals, and WilmerHale.

Henley is admitted to practice law in Washington, DC.

Agenda

- **History of clean energy and technology credits**
- Overview of IRA
- Key upcoming regulatory decisions
- Potential research & careers

History of Clean Energy and Technology Credits

- Impetus
 - Domestic energy supply (including fossil, fuels, etc.)
 - More recently - Climate change
- Iterative approach
- Short-term policy with extenders
- Tech-specific

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- History of clean energy and technology credits
- **Overview of IRA**
 - **Stated goals**
 - Categories of incentives
 - Emissions and energy impacts
 - Summary of the credits
- Key upcoming regulatory decisions
- Potential research & careers

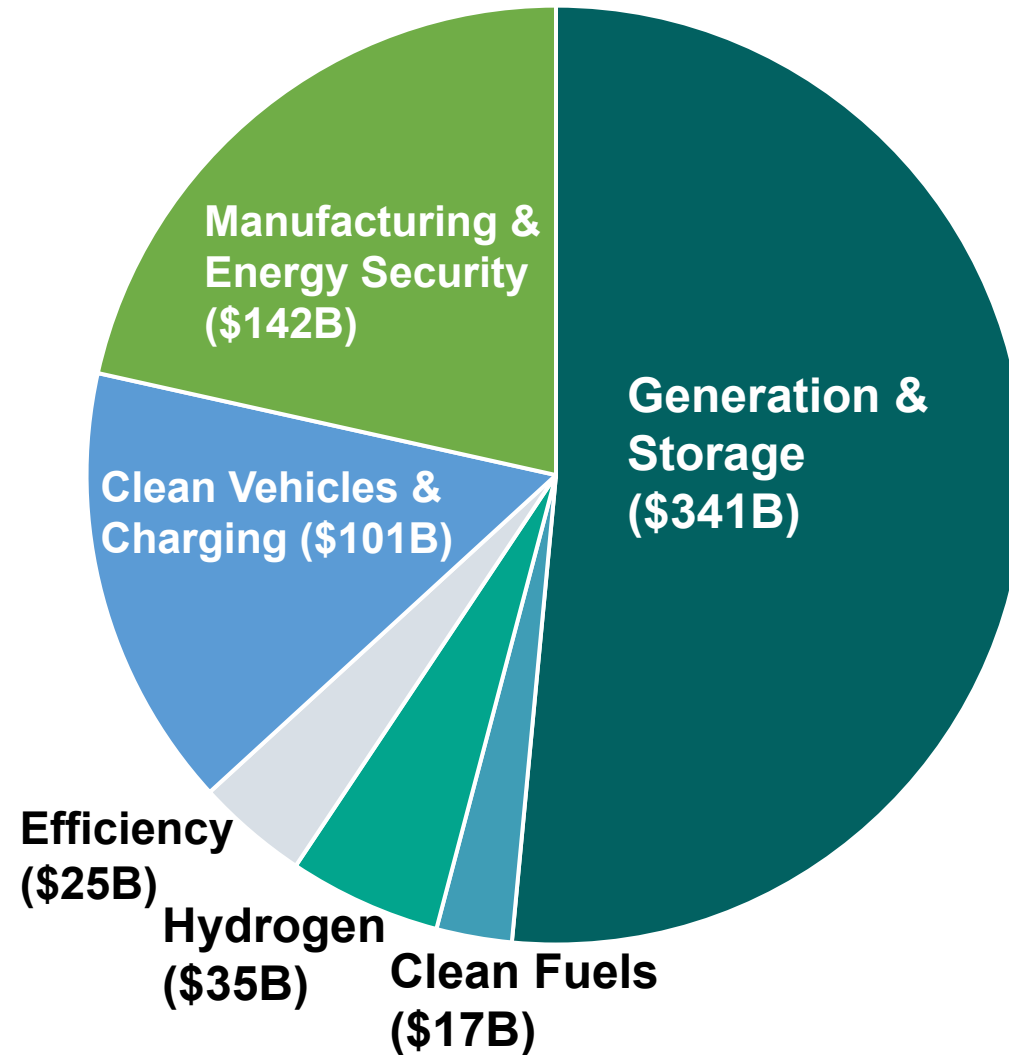
Stated Goals of the IRA

- Emissions - Put US on course for Administration's target of a 50-52% reduction in net emissions below 2005 levels by 2030
- Just Transition - Promote equity through improved access, and investments in historically underserved (EJ/frontline) communities and energy communities,
- Labor - Create good-paying, high-quality jobs
- Build domestic supply chains for clean energy materials to improve energy security and strengthen the US manufacturing base

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Categories of Incentives in the IRA

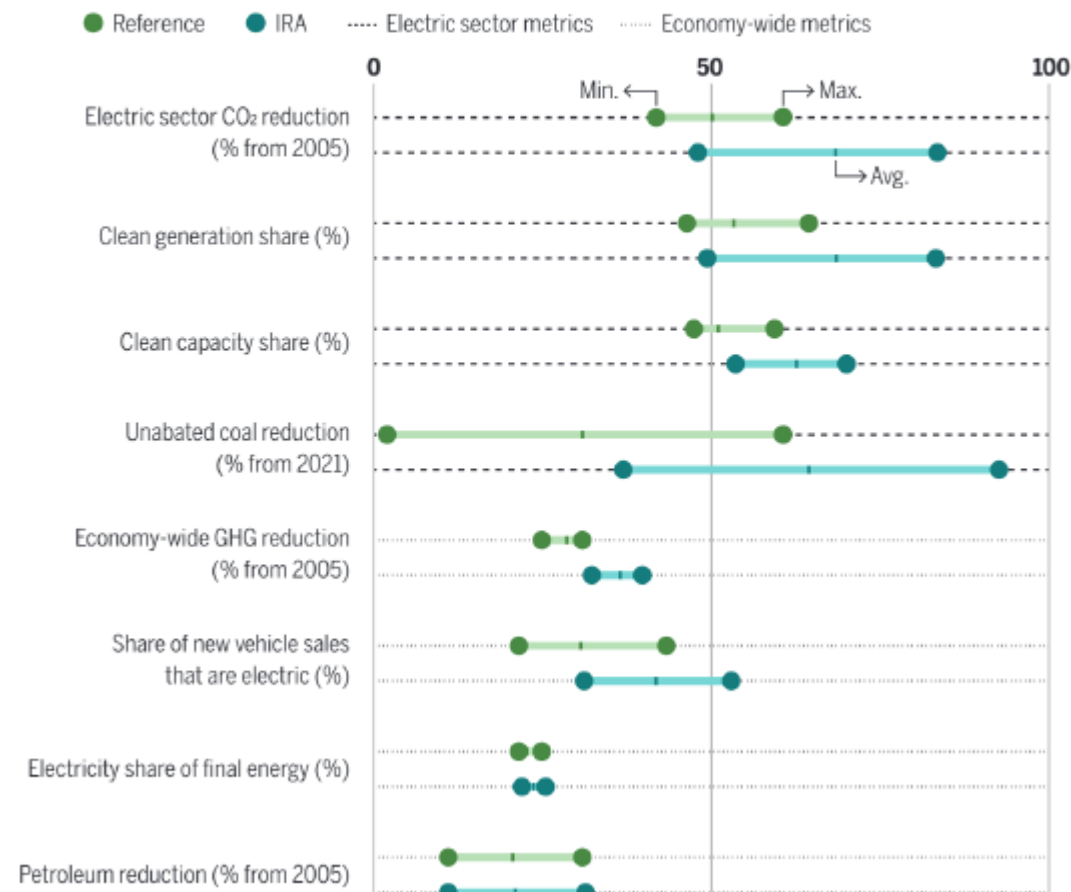


Source: <https://www.taxnotes.com/tax-notes-today-federal/energy-taxation/jct-estimates-impact-repealing-ira-energy-tax-provisions/2023/06/02/7gtlx>

Emissions and Energy Impacts

Key Inflation Reduction Act (IRA) indicators across models

Indicators reflect values estimated for the year 2030. Clean generation and capacity shares include renewables, nuclear, and carbon capture and storage–equipped generation. Electric vehicle sales include battery or plug-in hybrid electric vehicles. Model-specific values for these metrics are provided in table S6.



Source:
<https://www.science.org/doi/10.1126/science.adg3781>

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 - **Base credits**
 - Bonus credits
 - Monetization
- Key upcoming regulatory decisions
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Generation & Storage – Investment Tax Credit

- ITC = 30% of the basis in energy property assuming prevailing wage & apprenticeship requirements met
- Before 2025, covers specific technologies (solar, wind, etc.)
- Beginning in 2025, net-zero emission facilities only
- Qualifying basis (generally, FMV) in tangible property up to point of interconnection
- Coordination rules with other IRA credits

Generation & Storage – Residential Clean Energy Credit

- 22-30% of the clean energy expenditures
 - Solar
 - Fuel cell
 - Small wind
 - Geothermal heat pumps
 - Battery storage

Generation & Storage – Production Tax Credit

- 2.75¢/kWh if wage and apprenticeship requirements met
- Before 2025, covers specific technologies (solar, wind, etc.)
- Beginning in 2025, net-zero emission facilities only
- Must be sold to an unrelated party, except for electricity used to produce clean hydrogen

ITC/PTC Bonus Credits

- Wage & apprenticeship (5X)
- Energy Communities (+ 10%)
- Domestic Content (+ 10%)
- Low-income communities bonus (allocated +10-20% solar/wind ITC only)
- Bonuses are richer for ITC

	ITC	PTC*
Potential Total	60-70%	3.30¢
EJ Bonus	+10-20%	N/A
Energy Communities	+10%	+0.275¢
Domestic Content	+10%	+0.275¢
Wage & Apprenticeship	30%	2.75¢ (per kWh)

* Values adjusted for 2023 inflation factor

Discuss:
Why would you prefer ITC
vs. PTC?

Clean Fuels

- IRA extends biodiesel and other alternative fuel credits for 2023/2024 and creates new sustainable aviation fuel credit
- Tech neutral starting in 2025
- Amount depends on emissions rate and wage & apprenticeship
 - \$0.20 - \$1.00 per gallon for transportation fuel
 - \$0.35 - \$1.75 per gallon for aviation fuel

Clean Hydrogen

- Up to \$3/kg produced for sale or use
 - **\$3/kg** – $X < 0.45$ kg CO₂e/kg H₂
 - **\$1/kg** – $0.45 \text{ kg CO}_2\text{e/kg H}_2 \leq X < 1.5$ kg CO₂e/kg H₂
 - **\$0.75/kg** – $1.5 \text{ kg CO}_2\text{e/kg H}_2 \leq X < 2.5$ kg CO₂e/kg H₂
 - **\$0.6/kg** – $2.5 \text{ kg CO}_2\text{e/kg H}_2 \leq X < 4$ kg CO₂e/kg H₂
- Can elect ITC instead
- Key upcoming regulatory decision - guidance forthcoming on determining emissions rates

Clean Hydrogen – Selected Colors

- SMR (most common)
 - Gray
 - Blue
- Electrolysis
 - Green
 - Pink
- More – white, black, turquoise, etc.

New Consumer EVs & Charging

- New Consumer EVs
 - Up to \$7,500
 - Subject to assembly and new geographic sourcing requirements (battery components, critical minerals, final assembly) and MSRP and AGI limits
 - Dealer transfer
- Charging
 - 30% of cost (assuming prevailing wage & apprenticeship met), up to \$100,000
 - Subject to geographic limitations

Used Consumer EVs & Commercial EVs

- Used Consumer EVs
 - Up to \$4,000
 - Subject to AGI and price limits
 - Dealer transfer
- Commercial EVs
 - \$7,500 for small vehicles, \$40,000 for large vehicles
 - Mobile Machinery
 - No domestic requirements
 - Leases

Emerging Technologies

- Enhanced 45Q credit for carbon capture
- New Advanced Manufacturing Production Credit for components produced and sold
- New Clean Hydrogen Credit (in lieu of clean fuels credit)
- All three credits eligible for **direct pay for *any* entity** (not just applicable entities)

Energy Efficiency

- Energy Efficient Home Improvement Credit (25C)
 - Up to 30% of the cost of qualified clean energy efficiency improvements (windows, doors, heat pumps, biomass stoves, etc.)
- New Energy Efficient Home Credit (45L)
 - New credit for contractors building qualified new energy efficient homes
- Enhanced Efficient Commercial Buildings Deduction (179D)
 - Increase in per square foot deduction amount for energy efficient upgrades
 - Allows deduction for retrofits

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Bonus Credits

- Wage & apprenticeship
- Energy communities and low-income communities
- Domestic content

Wage and Apprenticeship Incentives

- Increased baseline ITC/PTC by factor of 5 if certain wage and apprenticeship requirements are met
- Increased credit amount for other credits where wage and labor requirements met (e.g., hydrogen, clean fuels, charging infrastructure, etc.)
- All non-exempted projects expected to satisfy these requirements

Low-Income Communities Bonus Credit and Energy Communities Bonus Credit

- Low-Income Communities
 - Allocated – 1.8GWs/year
 - 10-20% bonus for solar/wind ITC projects related to low-income communities
- Energy Communities
 - 10% bonus for ITC/PTC projects placed in “energy communities”
 - Mainly Brownfield sites and communities closely associated with historic fossil employment

Domestic Content Bonus

- 10% bonus credit for ITC/PTC
- Phaseout for elective pay
- Requirements
 - All steel or iron made in the US
 - 40% of the total costs of all manufactured products attributable to products made in the US

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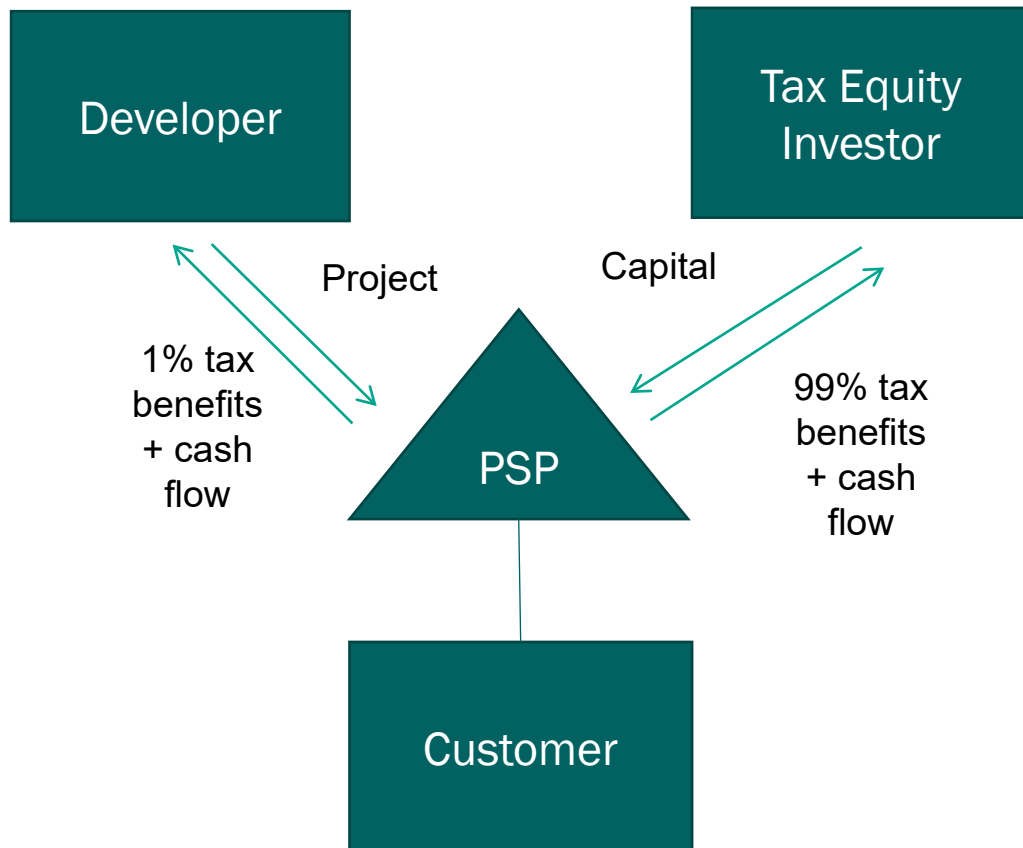
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Monetization Mechanisms

- Elective Pay (a.k.a. Direct Pay)
- Transferability

Tax Equity Partnerships

Pre-Flip

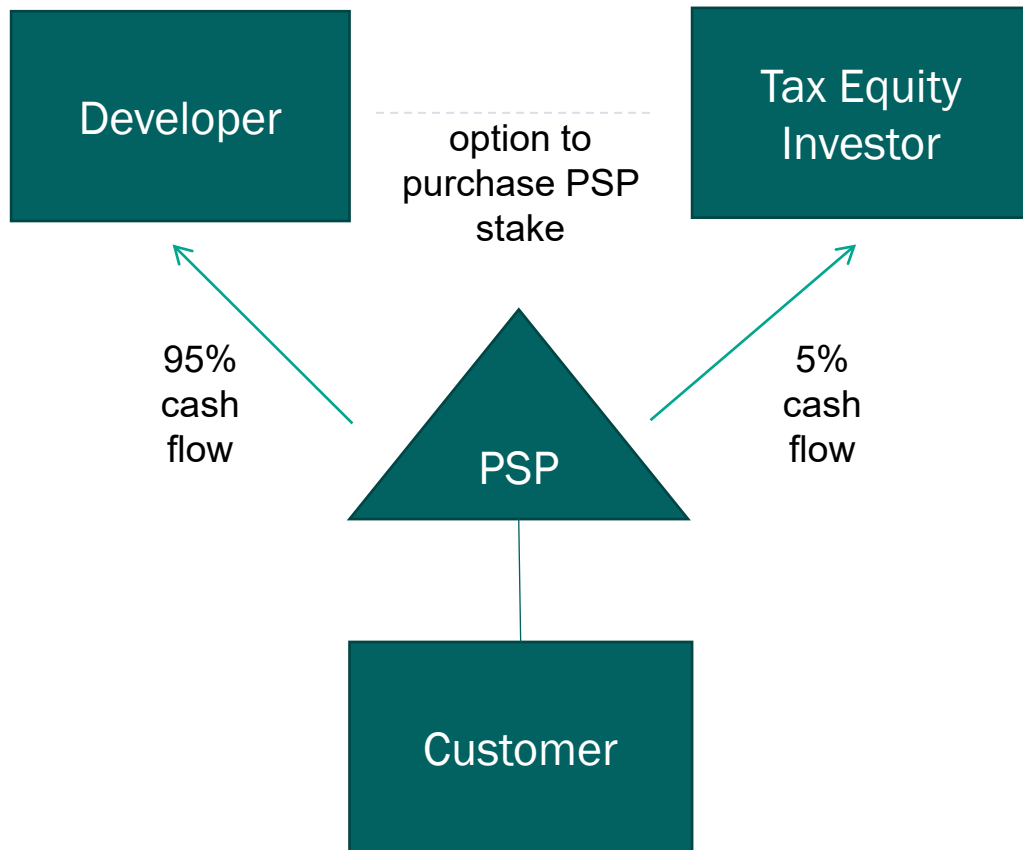


Partnership “flips”

- Common structure for financing clean energy projects while monetizing depreciation tax benefits – 80% of solar deals
- Key mechanism: uneven distribution of tax benefits and cash until investor has reached certain yield (usually when all benefits utilized)
- After investor has reached their agreed-upon yield, majority allocation of benefits is “flipped” back to the developer
- Investor must not be a lender or mere purchaser of tax credits

Tax Equity Partnerships

Post-Flip



Partnership “flips” cont’d

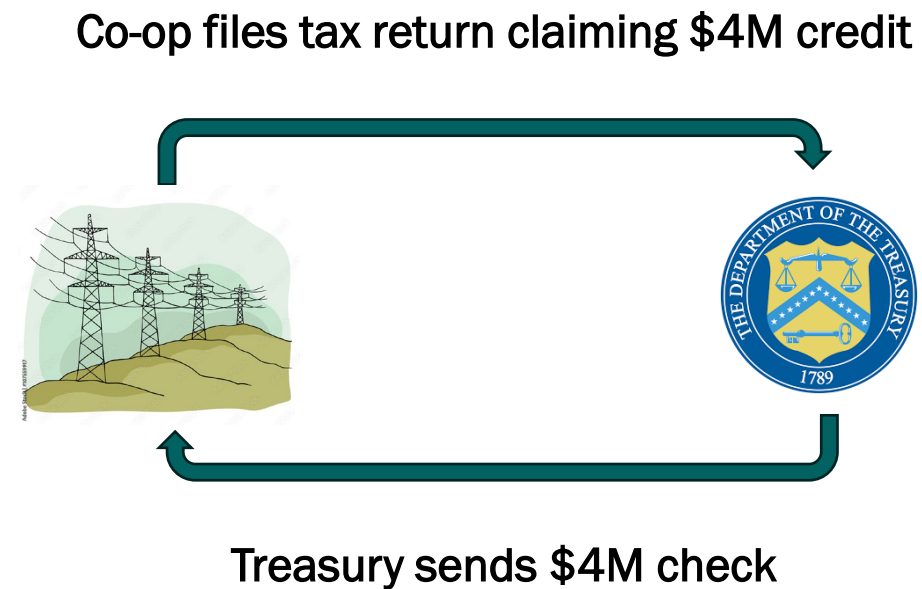
- After investor has reached their yield, the benefits of the partnership are “flipped” back to the sponsor, with the tax equity investor retaining a minimal (usually 5%) interest
- Developer often has option to purchase
- Other important points:
 - Limited pool of equity investors with enough capacity given high transaction costs - \$20B
 - Favors large developers and projects; leaves out small projects
 - Tax equity investment highly susceptible to macro factors

Elective Pay – Section 6417

- “Applicable entities” may claim direct pay (cash from IRS) for all IRA credits regardless of whether they owe any tax
 - Direct pay narrowed since BBB, which would have provided universal direct pay
- Applicable entities include state and local governments, territory governments, section 501 tax-exempts, rural co-ops
 - Still impactful considering co-ops and public power serve 25% of US
- Any taxpayer may claim direct pay for 45V (clean hydrogen), 45Q (carbon capture), or 45X (clean energy components)

Elective Pay Example

- Rural electric co-op invests \$10 million in solar array and meets wage, labor, and domestic content requirements of ITC.
- **Co-op has never been subject to tax and has never filed tax return.**
- Co-op places solar array into service claiming \$4 million ITC $((30\% + 10\%) \times \$10M)$

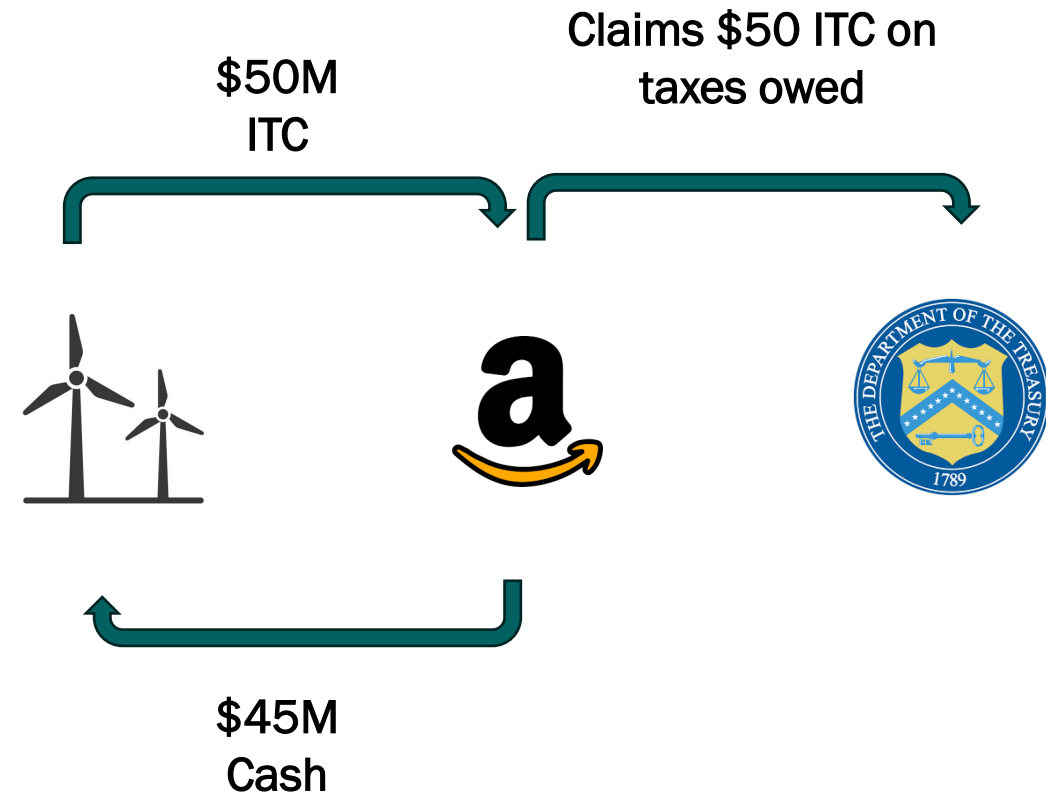


Transferability – Section 6418

- Entities may elect to sell their IRA tax credit to another for cash only
- Payment not deductible or recognized as income
- Credits will likely be sold at discount
 - Currently seeing 10% discounts for utility scale
 - 20-30% discounts for smaller projects
- Proposed guidance does not permit applicable entities to purchase credits and significantly limits individuals and closely held C corps from purchasing credits

Transferability Example

- Developer generates \$50M ITC.
- Developer does not have any taxable income in the year the project is placed into service
- Developer sells credit to another taxpayer for \$45M.
- Taxpayer claims credit on return and reduces taxes owed by \$50M.
- Taxpayer benefits + \$5M



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Tax Capacity

- Upcoming decisions impacting monetization options:
 - “Chaining”: Should Treasury allow applicable entities to purchase credits and claim direct pay?
 - Passive Activity Limitations: Should Treasury apply passive activity rules to credit purchasers?
 - Partnerships seeking direct pay
- Size of transferability markets and credit pricing will depend on these decisions

Tax Capacity – Size of Transferability Markets

Proposed Regulations

- Large Corps
- Partnerships
- Individuals & small corps w/ passive income

Potential Expansion Options

- Large Corps
- Partnerships
- +Small Corps
- + Certain applicable entities (governments, green banks, etc.)
- +All Individuals

Emissions Determinations – Clean Hydrogen

- Credit based on the “lifecycle greenhouse gas emissions rate”
- Statute defines lifecycle GHG by referencing Clean Air Act
- Requires use of GREET or “successor model”
- Forthcoming guidance will decide on 3 pillars
 - Additionality
 - Time-matching
 - Deliverability
- Will likely impact emissions determinations for clean fuels

Emissions Determinations – ITC/PTC & Clean Fuels

- Eligibility for tech-neutral ITC/PTC conditioned on facility GHG rate being “not greater than zero”
- No specific methodology for determining emissions referenced
- Treasury will need to adopt methodology and publish table with emissions rates for various facilities

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Potential Research

- Tax capacity
- Tax credit incidence
- Emissions accounting
- Inducement effects?
- Legislative process implications
 - Agency expertise
 - Lobbying
- Data access
- Tracking impact of the law on emissions and non-emissions goals

Careers

- Modeling
 - E.g., Joint Committee on Taxation, Treasury, environmental NGOs
- Credit transfer exchanges
- Tax insurance
- Project finance
- Public interest tax expertise
- Policy

Q&A and Discussion



Thank you!

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Discussion

- Which tax credits could be most useful given your state's market and policy priorities?
- Which tax credits or aspects of the tax credits would you like more information on?
 - What have you heard from businesses and/or consumers about the tax credits? What about local governments and non-profits/CBOs?
 - What questions/needs have come up?
- How is your office communicating about the tax credits with different audiences? What would be helpful to support your efforts?
- How could the tax credits play a role in the economic development process for a specific clean energy project?
 - How can SEOs/EDOs ensure businesses are taking advantage?
 - What resources do businesses/project developers need?
 - Who needs to be a part of these discussions? What's the timeline?
- How is your state/office thinking about the broader economic development implications of the tax credits (i.e., pre-apprenticeship availability, domestic content, siting/permitting for increased number of projects)?

Thank you!

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