Energy Valuation Conference
Federal Tax Incentives Post IRA

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DRAFT – For Discussion Purposes Only

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Agenda

- Overview of Inflation Reduction Act
- Prevailing Wage & Apprenticeship
- Kickers
- Direct Pay & Transferability
- Financing Update
- Deal Related Issues & Practical Considerations
- Valuation Impacts & Considerations

Disclaimer

The following information is not intended to be “written advice concerning one or more Federal tax matters” subject to the requirements of section 10.37(a)(2) of Treasury Department Circular 230.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

$370B of new energy related tax credits over the next 10 years

General Overview of Renewable Energy Incentive Landscape

- **Base Credit Rates:** Lower credit amounts provided for fulfilling the basic environmental-based requirements.
- **Bonus Credit Rates:**
  - Increased Credit Rate (Base x5) conditioned on satisfaction of "apprenticeship" and "prevailing wage" requirements
  - 10% bonus increase for "domestic content" satisfaction
  - 10% bonus increase for targeted property placement in an "energy community" (i.e., Brownfield site)
  - 10% bonus increase for property placement in a "low-income community"
- Relaxed overlap rules between tax-exempt financing and tax credits.

Effective Dates & Credit Timeframes

- **Effective dates** and credit applicability timeframes vary. Generally, many of the credits begin to apply starting in FY22 or FY23.
- Certain credits **begin to sunset** following targeted dates or after emission targets are achieved. Examples include:
  - Sec. 48 Investment Tax Credit: Generally starts to phase down for property that begins construction in FY33.
  - Sec. 45Y Clean Electricity Production Credit: Generally starts to phase down the latter of FY32 or when the electric power sector emits 75% less carbon than FY22 levels.
  - Sec. 45Q Carbon Sequestration: For carbon capture facilities or equipment for which construction begins before Dec. 31, 2032.

Tax Credit Landscape Under the Inflation Reduction Act

Tax credits play a pivotal role in making investments in energy transition economically viable

Production Tax Credits – §45

- Repeals the sunset provisions; applies to projects that begin construction before Jan. 1, 2025 (*but see §45Y*).
- Modifies/increases credit amount to 0.5 cents base rate or 2.5 cents bonus rate (per kilowatt hour (kWh)) (higher credit after satisfaction of apprenticeship and prevailing wage requirements).
- Incremental 10% enhancements for domestic content and/or placement in energy community available.
- Available for renewable electricity sources, including solar (previously, solar was limited to an ITC).
- Separate credit for carbon sequestration (§45Q), based on tons of carbon captured, also expanded.

Investment Tax Credits – §48

- Repeals current sunset provisions; applies to projects that begin construction before Jan. 1, 2025 *(but see §§48C-48E);* ITC for geothermal extended until 2034.
- Modifies/increases credit amount to 2-30% of eligible cost basis (higher credit after satisfaction of apprenticeship and prevailing wage requirements).
- Incremental 10% or 20% for domestic content or placement in energy community or low-income community.
- Standalone energy storage made eligible for ITC, among other renewable sources.

Clean Electricity PTC & ITC – §48E & §45Y

- A credit for any power facility of any technology, so long as the facility's carbon emissions are at or below zero.
- Base credit rate of .3 cents per kWh and a bonus credit rate of 1.5 cents per kWh of electricity produced and sold in the 10-year period after a qualifying facility is placed in service.
- A base credit rate of 6% of qualified investments with respect to any qualified facility and any energy storage technology. Bonus credit rate of 30% is subject to certain additional requirements.
- Additional bonuses available under: (1) the "domestic content requirement" rule (i.e., 10% increase); and (2) for projects placed in "energy communities" (i.e., 10% increase).

Prevailing Wage & Apprenticeship (“PW&A”) Requirements

Tiered credit system

- PW&A is the cornerstone of virtually all tax subsidies enacted by the IRA
- Taxpayers must satisfy the PW&A to qualify for the ITC or PTC “Bonus Credit” (e.g., 6% vs 30% ITC)
- **Two notable exceptions** to the prevailing wage and apprentice labor requirements:
  - Projects with less than 1 MW of nameplate capacity
  - Projects that begin construction prior to **1/29/23** avoid application PW&A requirements
- Prevailing wage requirements: Any laborers, mechanic, or contractor **must be paid prevailing wages**
  - Applies **for construction, alteration, or repair** of the facility
  - **During the tax credit period** (i.e., 5-year recapture period with respect to ITC-eligible projects, 10-year credit period with respect to PTC-eligible facilities, and 12-year credit period for carbon sequestration facilities/equipment)
  - Rates determined by the Secretary of Labor and Department of Labor for the locality of facility
- Taxpayers can correct underpayment via a "make-whole" payment
  - Equal to the difference between required amount and amount paid with interest and a $5K penalty per underpaid laborer; $10K penalty for intentional disregard

Prevailing Wage & Apprenticeship Requirements (continued)

Tiered credit system

- Apprenticeship requirements: a taxpayer must ensure that a percentage of the total labor hours must be performed by qualified apprentices: 10% before 2023; 12.5% for 2023; 15% for 2024 and later
  - Apprentices must be in the Department of Labor's Apprenticeship program or a state equivalent
  - IRA includes a “good faith effort” exception for the apprenticeship requirements
- Detailed guidance on the PW&A requirements in IRS Notice 2022-61

<u>Common compliance missteps</u>

- Prevailing wages and fringe benefits are calculated incorrectly
- Covered worker classified incorrectly
- Worker performs multiple duties, and classifications are not properly allocated between such duties
- Inadequate record keeping regarding the capture of total time worked
- Wages are not paid on a weekly basis
- Wages paid, per certified payroll, do not agree with employee pay stub
- Certified payrolls not submitted within required time frame
- Lower tier subcontractors not aware of Davis Bacon Act requirements

Domestic Content Requirements

10% Bonus Credit if PW&A Met

- Only applicable to sections 45, 45Y, 48, and 48E and for facilities placed in service after 2022
- All steel and iron manufacturing processes must take place in US
- Exceptions for components or subcomponents of other manufactured products
- Taxpayers will want to include provisions in procurement contracts requiring vendors to utilize US steel, iron and manufactured products
- Manufactured products deemed to be produced in US if a percent of costs are mined, produced, or manufactured in the US as follows:
  - 40% if construction begins before 2025
  - 45% if construction begins during 2025
  - 50% if construction begins during 2026
  - 55% if construction begins after 2026
- Lower domestic content rules for offshore wind facilities
- 10% bonus credit requires PW&A requirements also be met

Energy Community ("EC") Requirements

10% Bonus Credit if PW&A Met

- Applicable to sections 45, 45Y, 48, and 48E and applies to projects placed in service after 2022
- 10% kicker for projects placed in an "energy community", which is either:
  - **Brownfield site** - property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant;
  - **Statistical Areas -** Area that has 0.17% or greater direct employment or 25% or greater tax revenues related to the extraction, processing, transport or storage of coal, oil or natural gas, **and** an unemployment rate at or above the national average; **or**
  - **Coal -** Census tract (or adjoining tract) where a coal mine closed after 1999, or a coal-fired electric generating unit was retired after 2009
- 10% bonus credit requires PW&A requirements also be met
- **Notice 2023-29** - Indications are that it will allow investors who were reluctant to size their investments based on qualification for an energy community bonus credit now to move forward
- **Safe Harbor** - allows a developer to determine if the project site is an EC on the date construction is considered to have started for tax purposes
  - If project qualifies on that date, it will be considered to qualify through the entire PTC period

Direct pay & Transferability

Direct pay:

- Taxpayers that fall within the definition of ‘applicable entities’ (i.e., tax-exempt entities, state & local governments, etc.) can irrecably elect to be treated as having made a payment of tax equal to the credit value
- The limitation on applicable entities does NOT apply to credits for:
  - Carbon capture and sequestration (Sec. 45Q)
  - Clean hydrogen (Sec. 45V)
  - Advanced manufacturing production credit (Sec. 45X)
  - Direct pay these three credits are limited to five years for taxpayers who are not applicable entities
- Election made at the entity level, not the partner or shareholder level

Transferability:

- Generally, entities that are not applicable entities under the direct pay rules may annually elect to transfer tax credits to third parties
- Credit must be sold for cash to an unrelated party
- Transfer may be for all or a portion of a credit
- No re-transfers allowed, and no deduction for buyer or income inclusion for seller
- Transferability cannot be elected in a year in which the taxpayer elects direct pay
- Tax credits must be sold by the partnership if project is owned by partnership
- Timing - deadline to sell credits is at least until year end and likely the due date for tax return

Financing Landscape – Transferability and Tax Equity

Transferability and Tax Equity

- Transferability - What does the transferability market look like?
  - Market is nascent but deals moving forward (term sheets and documentation)
  - Credit Pricing – Solar ITC and wind PTC generally trading between 90¢ and 92¢ per dollar of tax credit
  - Factors: (i) documentation (ii) balance sheet/credit worthiness, (iii) annual purchase vs prepayment for period of years (iv) risk factor of a specific credit (ITC vs PTC etc) and (v) other factors
    - Sellers may end up having to buy insurance to backstop indemnities. Tax insurance policies have generally required payment of a one-time premium of 2% to 3% of the maximum potential payout.
  - Banks are exploring lending bridge debt against the future payment streams for forward tax credit sales
- Impact to Tax Equity
  - Tax equity isn't going anywhere…Tax equity is not expected to develop into depreciation only projects (tax credits are worth 30 cents (or more) per dollar of capital while depreciation is worth 14 cents
  - Transferability may speed up the tax equity life cycle
- Does "Start of Construction matter" anymore?
  - Yes – for PW&A and Energy Community Kicker
  - 5% safe harbor method, offsite physical work, onsite physical work – know what to look for…

Deal Related Issues and Other Practical Considerations

Maximizing Tax Credit Value

- How do I mitigate tax risk and maximize tax credit value?
  - Document, document, document – better documentation means more tax credit value
  - Talk to your E&C company to see how they are complying PW&A requirements
  - Talk to suppliers about domestic content
  - Ensure contracts have information sharing provisions in place
- Other interesting issues:
  - Which credits are stackable, and what is the definition of a “facility” for credits that are not stackable
  - Repowering Solar – unlocked idea with new solar PTC. Large potential value but no guidance on application of 80/20 test for solar
  - Solar PTC project with co-located storage - ITC on shared equipment
  - IRS audit procedures for transferred credits
  - Partnerships with taxable and tax-exempt partners – direct pay and transferability
  - Where a taxpayer has previously elected direct pay for the first 5 years of carbon sequestration or clean hydrogen credits, potential ability to transfer credits generated after year 5

Inflation Reduction Act - Valuation Impact

Dynamics of the IRA

Valuation Trends

The best of times…

- IRA….Better than “Build Back Better”
- Merchant prices continue to increase through Q1 (good for power sellers, bad for purchasers)
- Offshore wind keeps progressing
- Infrastructure Investment and Jobs Act is starting to address transmission and grid issues
- ESG is becoming mainstream – and bankers are giving renewable energy projects and high ESG score companies better lending terms
- Transaction size vary in the renewables space as an assortment of market participants jockey for position

And the worst of times…

- Inflation is at historically high levels
- If natural gas continues to fall, merchant pricing would fall as well
- Some states pushing against “all things ESG-related”
- Supply chain delays are making development difficult
- Interest rates are pressuring asset returns
- Interconnection Queue backlogs are causing concerns for early and mid stage projects

Inflation Reduction Act - Valuation Impact

Lifecycle of a Renewable Project

Acquisition of Development Platforms

- Experienced development teams can add value when they buy development projects from an early-stage developer
- Large strategic and financial buyers who do not have significant development experience are starting to try to either chase yield or find a way to hit ESG or RPS goals.
- Buyers are willing to pay for the development projects at various stages of development and even will pay for track record if a business is acquired with experienced development team in place.

Carbon Capture and Sequestration

- Extremely complex engagements requiring industry/technology expertise
- Requires Subject Matter Expertise related to IRC §45Q

Tax credits for other generation technologies or clean fuels

- Examples – Nuclear (§45U), Hydrogen (§45V)
- Examples – Advanced Manufacturing (§45X), Renewable Fuels (§45Z), Sustainable Aviation Fuel (§40B)

Repower here, Repower there, Repower everywhere

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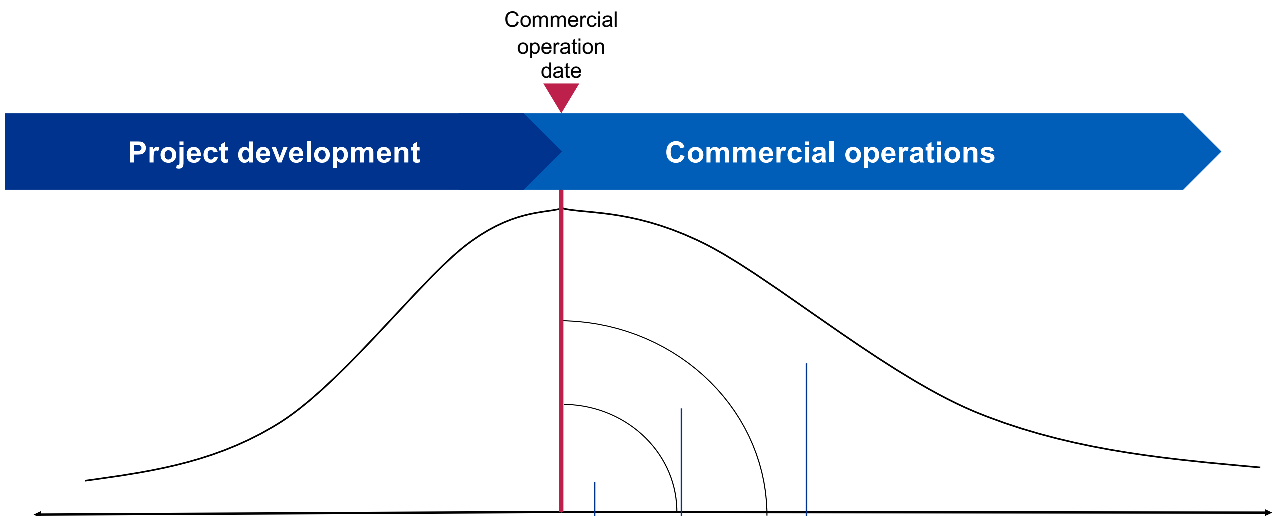
Inflation Reduction Act - Valuation Impact

Lifecycle of a Renewable Project

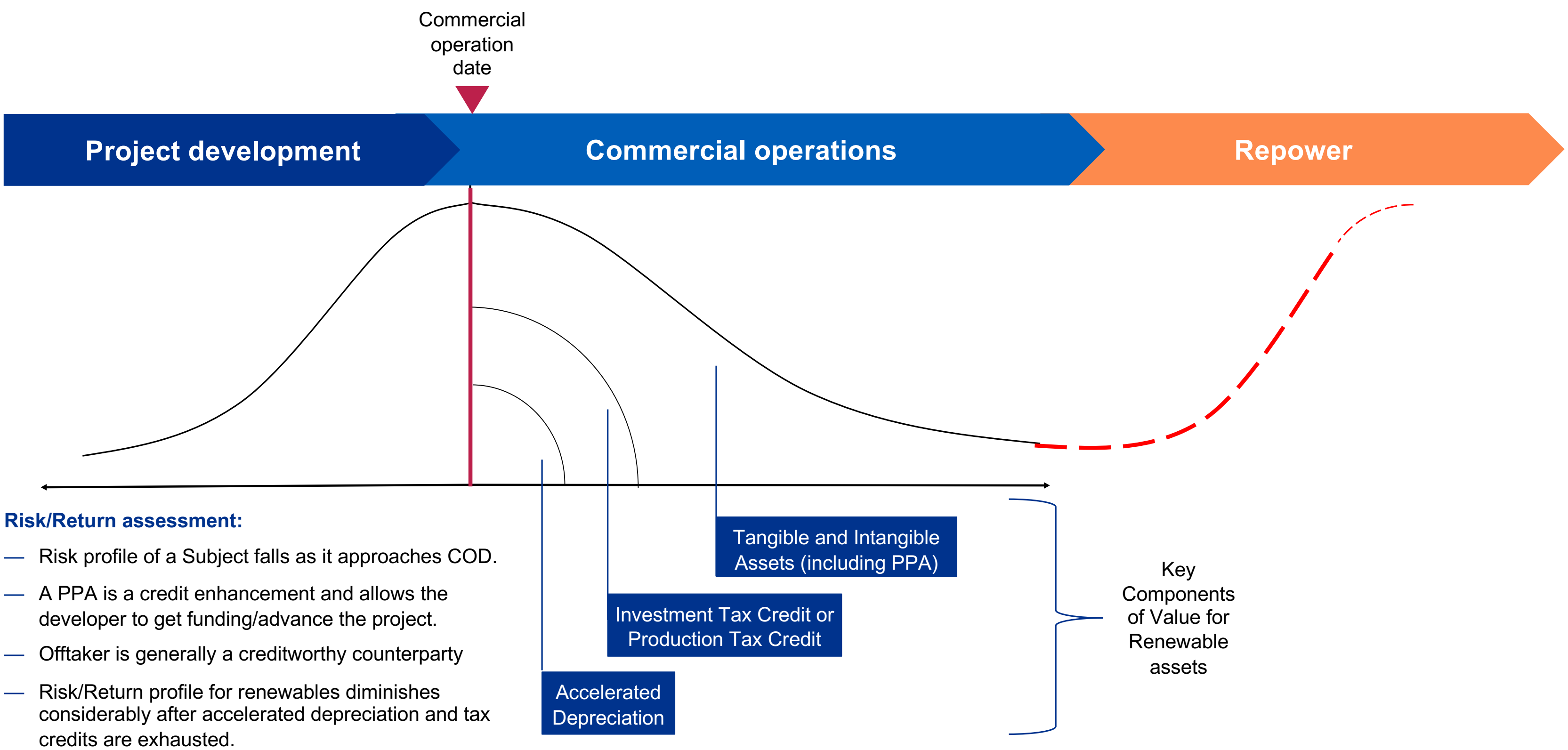


Risk/Return assessment:

- Risk profile of a Subject falls as it approaches COD.
- A PPA is a credit enhancement and allows the developer to get funding/advance the project.
- Offtaker is generally a creditworthy counterparty
- Risk/Return profile for renewables diminishes considerably after accelerated depreciation and tax credits are exhausted.

Inflation Reduction Act - Valuation Impact

Lifecycle of a Renewable Project



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Questions

Q&A

Appendix – ITC & PTC Rates

ITC and PTC Rates

- ITC credit rate is 30% and the PTC rate is $27.50/MWh for:
  - Projects that start construction before January 30, 2023;
  - Projects that satisfy the wage and apprenticeship rules – see Exhibit 1; or
  - Projects that have a maximum net output of less than 1 MW (as measured in alternating current).
- ITC and PTC levels can be increased by domestic content and energy community bonuses.
- Sec. 45Q carbon sequestration credit is based on the # of metric tons of carbon captured, as follows:

	Meet the wage and apprenticeship requirements?	
Qualified Facility Type	**Yes**	**No**
Direct Air Capture Facility		
- Secure storage	$ 180	$ 36
- EOR or other utilization	$ 130	$ 26
Other Qualifying Facility		
- Secure storage	$ 85	$ 17
- EOR or other utilization	$ 60	$ 12

Appendix – Section 45Y (replacing 45 (PTC) after 2024)

Clean Electricity Production Credit

- **Credit:** IRA adds new Section 45Y, the Clean Energy Production Tax Credit, as a continuation of Section 45 (PTC) in 2025.
- **Tech Neutral:** Applies to any qualified facility placed in service after 2024 that is used for the generation of electricity and has an anticipated greenhouse gas emissions rate of no more than zero.
  - Includes additions of capacity that are placed in service on or after January 1, 2025.
- **Amount:** Full PTC ($27.50/MWh) before adders – increased by the inflation adjustments between now and 2025, and then annually.
  - Must meet prevailing wage and apprenticeship requirements to qualify for full credit.
  - Adders: Subject to 10% energy communities and 10% domestic content adders.
  - Depreciation: eligible property for the credit will be 5-year MACRS property.
- **Timing:** begins January 1, 2025 and ends in 2035.

Appendix – Section 45E (replacing 48 (ITC) after 2024)

Clean Electricity Production Credit

- **Credit:** IRA adds new Section 48E, Clean Electricity Investment Credit, as a continuation of Section 48 (ITC) in 2025.
- **Tech Neutral:** Applies for investments in qualifying zero-emissions electricity generation facilities or storage technologies for facilities placed in service after December 31, 2024.
  - Includes additions of capacity that are placed in service on or after January 1, 2025.
- **Amount:** up to full ITC - 30% before adders, mirrors the current Section 48 (ITC).
  - Must meet prevailing wage and apprenticeship requirements to qualify for full credit.
  - Adders: Subject to 10% energy communities and 10% domestic content adders.
  - Depreciation: eligible property for the credit will be 5-year MACRS property.
- **Timing:** begins January 1, 2025 and ends in 2035.

Summary of Investment Tax Credit (ITC) and Production Tax Credit (PTC) Values Over Time

			Start of Construction						
			2006 to 2019	2020 to 2021	2022	2023 to 2033	The later of 2034 (or two years after applicable year[a])	The later of 2035 (or three years after applicable year[a])	The later of 2036 (or four years after applicable year[a])
ITC	Full rate (if project meets labor requirements[b])	Base Credit	30%	26%	30%	30%	22.5%	15%	0%
ITC	Full rate (if project meets labor requirements[b])	Domestic Content Bonus				10%	7.5%	5%	0%
ITC	Full rate (if project meets labor requirements[b])	Energy Community Bonus				10%	7.5%	5%	0%
ITC	Base rate (if project does not meet labor requirements[b])	Base Credit	30%	26%	6%	6%	4.5%	3%	0%
ITC	Base rate (if project does not meet labor requirements[b])	Domestic Content Bonus				2%	1.5%	1%	0%
ITC	Base rate (if project does not meet labor requirements[b])	Energy Community Bonus				2%	1.5%	1%	0%
ITC	Low-income bonus (1.8 GW/yr cap)	<5 MW projects in LMI communities or Indian land				10%	10%	10%	10%
ITC	Low-income bonus (1.8 GW/yr cap)	Qualified low-income residential building project / Qualified low-income economic benefit project				20%	20%	20%	20%
PTC for 10 years ($2022)	Full rate (if project meets labor requirements[b])	Base Credit			2.75 ¢	2.75 ¢	2.0 ¢	1.3 ¢	0.0 ¢
PTC for 10 years ($2022)	Full rate (if project meets labor requirements[b])	Domestic Content Bonus				0.3 ¢	0.2 ¢	0.1 ¢	0.0 ¢
PTC for 10 years ($2022)	Full rate (if project meets labor requirements[b])	Energy Community Bonus				0.3 ¢	0.2 ¢	0.1 ¢	0.0 ¢
PTC for 10 years ($2022)	Base rate (if project does not meet labor requirements[b])	Base Credit			0.55 ¢	0.55 ¢	0.4 ¢	0.3 ¢	0.0 ¢
PTC for 10 years ($2022)	Base rate (if project does not meet labor requirements[b])	Domestic Content Bonus				0.1 ¢	0.0 ¢	0.0 ¢	0.0 ¢
PTC for 10 years ($2022)	Base rate (if project does not meet labor requirements[b])	Energy Community Bonus				0.1 ¢	0.0 ¢	0.1 ¢	0.0 ¢

a "Applicable year" is defined as the later of (i) 2032 or (ii) the year the Treasury Secretary determines that there has been a 25% or more reduction in annual greenhouse gas emissions from the production of electricity in the United States as compared to the calendar year 2022.

b "Labor requirements" entail certain prevailing wage and apprenticeship conditions being met.

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Appendix – High Level Table of Main IRA Tax Credits

	Applicable Credits	Type of Credit	Base Credit Amount	Bonus Credit - Wage/Apprenticeship	Bonus Credit Amount - Domestic Content Requirement	Bonus credit amount - Energy Community	Bonus credit amount - low-income communities
1	Section 30C - alternative fuel vehicle refueling property	ITC	6% of cost for properties subject to depreciation rules.	30% of the cost of the property	N/A	N/A	N/A
2	Section 45(a) renewable electricity production credit	PTC	0.55 cents per Kilowatt hour (inflation adjusted)	2.75 cents per Kilowatt hour (inflation adjusted)	10% increase	10% increase	N/A
3	Section 45Q Carbon oxide sequestration credit	PTC (based on carbon captured and sequestered/utilized	Varies between $12 - $36 per metric ton of carbon	Varies between $60 - $180 per metric ton of carbon	N/A	N/A	N/A
4	Section 45U(a) zero-emission nuclear power production credit	PTC	0.3 cents per Kilowatt hour for electricity produced	1.5 cents per Kilowatt hour for electricity produced	N/A	N/A	N/A
5	Section 45V(a) - credit for production of clean hydrogen	PTC	$0.60 per kilogram of hydrogen produced	$3 per kilogram of hydrogen produced	N/A	N/A	N/A
6	Section 45W credit for qualified commercial vehicles (see 45W(d)(3))	ITC	15% (hybrid cars) and 30% (100% electric Vehicles), subject to caps	N/A	N/A	N/A	N/A
7	Section 45X(a) - advanced manufacturing production credit	PTC	Various credits	N/A	N/A	N/A	N/A
8	Section 45Y(a) - clean electricity production credit	PTC	.3 cents per Kilowatt hour for electricity produced	1.5 cents per Kilowatt hour for electricity produced	10% increase	10% increase	N/A
9	Section 45Z(a) - clean fuel production credit		Bill extends the income and excise tax credits for biodiesel and biodiesel mixtures; various other credits.	N/A	N/A	N/A	N/A
10	Section 48 - Energy credit	ITC	6% (phases down starting in FY33)	30%	10%	10%	With respect to solar and wind facilities: Additional 10% - 20% credit (based on where project is located)
11	Section 48C qualifying advanced energy project	ITC	6% of qualifying investment	30% of qualifying investment	N/A	N/A	N/A
12	Section 48E - Clean electricity investment credit	ITC	6% of the investment in qualified property	30% of the investment in qualified property	10% increase	10% increase	N/a

Thank you!