

# Clean Energy Grants, Tax Credits & Workforce Issues under the IRA

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# Significant Opportunities to Cost-Effectively Meet Sustainability Goals

- ▶ Corporate ESG and Sustainability goals typically include energy efficiency and green energy use.
- ▶ With recently passed Inflation Reduction Act now are significant incentives to implement energy efficiency and clean energy projects.
- ▶ Can often combine with other incentives (Focus on Energy, Office of Energy Innovation, etc.).
- ▶ Also significant incentives for clean energy businesses.

# Investment Tax Credits under the Inflation Reduction Act

# Extension and Modification of ITC under Inflation Reduction Act

- ▶ Investment tax credit for solar was 26% and was scheduled to be reduced to 10% by 2024.
- ▶ With the Act:
  - ▷ Base credit rate of 6%
  - ▷ But increased to 30% if certain requirements met.
- ▶ 30% credit also available for: geothermal, combined heat and power, biogas, energy storage, and microgrid controllers.
- ▶ 30% credit also available by election in lieu of production tax credit for: wind, biomass, landfill gas facilities, trash facilities, qualified hydropower facilities, and marine and hydrokinetic renewable energy facilities.
- ▶ 30% credit also available for interconnection property (below 5 MW).

# Requirements for 30% tax credits

- ▶ Less than 1 megawatt AC (project includes one or more energy properties part of single project)
  - ▷ Under IRS guidance that predates the IRA, multiple energy properties may be treated as a single project based on relevant facts and circumstances, including whether the energy properties:
    - ▶ are owned by a single legal entity;
    - ▶ are constructed on contiguous pieces of land;
    - ▶ are under a common power purchase agreement;
    - ▶ have a common intertie or common substation;
    - ▶ are under common environmental or other regulatory permits;
    - ▶ were constructed pursuant to a single master construction contract; or
    - ▶ the construction of the energy properties was financed pursuant to the same loan agreement.
- ▶ Meet prevailing wage and apprenticeship requirements.

# Apprenticeship Requirements

- ▶ Begin construction
  - ▷ Before January 1, 2023- 10 percent
  - ▷ During 2023- 12.5 percent
  - ▷ After December 31, 2023- 15 percent
- ▶ Rates are subject to any applicable apprentice-to-journey worker ratio from Department of Labor or the applicable state apprenticeship agency.

# Prevailing Wage Requirements

- ▶ Construction, and
- ▶ Alteration and repair during first 5 years of operation.
- ▶ Any laborers and mechanics paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality.

# ITC Extended to Cover Storage and Microgrid Controls

- ▶ Energy storage receives, stores, and delivers energy for conversion to electricity and has a capacity of at least 5 kWh.
- ▶ Can add stand-alone storage or add storage to existing solar and receive tax credit.
- ▶ Microgrid Controllers: control the energy resources of a microgrid and capable of:
  - ▷ operating in connection with the grid,
  - ▷ as a single controllable entity in connection with the grid, and
  - ▷ independent from the grid.



# Can Receive Tax Credit on Interconnection Equipment

- ▶ Covers expenditures paid or incurred for interconnection property related to solar and other tax credit projects (except stand-alone microgrid projects).
- ▶ Applies to projects with maximum net output of not greater than 5 megawatts alternating current.

# Opportunities for Increased Credits

- ▶ 10% increase if meet domestic content requirements (essentially all steel and iron from U.S. and 40% of manufactured product costs).
- ▶ 10% increase if in “energy community” (includes brownfield sites and census tracts including and surrounding coal fired electric generating units retired after 12/31/2009).
- ▶ Potential 10% credit increase if in low-income community or on Indian lands or 20% additional credit if low-income residential building project or low-income economic benefit project (1,800 MW limit in 2023 and in 2024)

# Inflation Reduction Act Allows Sale of Tax Credits

- ▶ Entities unable to take tax credits directly can transfer them.
- ▶ Sale of credits for cash to unrelated entities.
- ▶ No gross income from sale.
- ▶ No expense from purchase.

# Inflation Reduction Act Allows Political Subdivisions to Directly Receive Tax Credit

- ▶ Governments and tax-exempt entities allowed to elect to be treated as having made a payment of tax equal to the value of the credit.
- ▶ File request for refund of deemed tax overpayment.
- ▶ Can directly receive tax credit without needing partnership with investor.
- ▶ Does not apply to depreciation deductions, so in some situations it may be better to partner with investor.

Other Funding Under IRA

# Significantly Increased REAP Funding under Inflation Reduction Act

- ▶ \$2 billion in additional funding for REAP
- ▶ Increases grants from 25% to 40% of project costs.
- ▶ Renewable Energy Systems & Energy Efficiency Improvement Loans and Grants
  - ▷ Renewable Energy System Grants:
    - ▶ \$2,500 minimum
    - ▶ \$1,000,000 maximum
  - ▷ Energy Efficiency Grants:
    - ▶ \$1,500 minimum
    - ▶ \$500,000 maximum
- ▶ Competitive Unrestricted Grants available at specific times
- ▶ Competitive Loan Guarantees available continuously throughout the year
- ▶ Available to agricultural producers and rural small businesses.
  - ▷ Rural small business can potentially be owner of system that serves otherwise ineligible building(s).

# Greenhouse Gas Reduction Fund

- ▶ \$27 billion in grants to certain non-profit entities to provide funding and financing of green energy and other clean projects.
  - ▷ \$7 billion for funding and financing zero-emission projects in low-income and disadvantaged communities (states, municipalities and tribes able to compete as direct recipients that provided grants, loans and other financial assistance).
  - ▷ Approximately \$12 billion for projects, activities and technologies that reduce or avoid or assist communities in reducing or avoiding greenhouse gas emissions and other forms of air pollution
  - ▷ \$8 billion for same purposes but focused on low income and disadvantaged communities
- ▶ Provides additional opportunities for low-cost funding for community and private-public partnership renewable energy, energy efficiency and other clean energy projects.

# Significant Increase in 179D Tax Deduction for Building Energy Efficiency

- ▶ Increases the current maximum tax deduction of \$1.88/sq. ft. to \$5.00/sq. ft. to incentivize energy efficient construction and rehabilitation that meets prevailing wage and apprenticeship requirements.
- ▶ Available for commercial buildings and multifamily buildings that are four stories or taller.
- ▶ Must be at least 25% more efficient than reference building and 50% more efficient to receive full \$5.00/sq. ft. cap (starts at \$2.50 and increases \$0.10 for each percent above 25%).
- ▶ Governments can allocate 179D tax deductions to architects, engineers, and designers responsible for designing a building's energy efficient systems.



# Grants and Tax Credits for Industrial Facilities

# Assistance for Advanced Industrial Technologies at Eligible Facilities

- ▶ \$5.5 billion available from FY 2022 through September 30, 2026, to provide financial assistance on a competitive basis through the U.S. Department of Energy Office of Clean Energy Demonstrations.
- ▶ Up to 50% of the cost of the project.
- ▶ Can be a grant, rebate, direct loan or cooperative agreement.

# Eligible projects

1. Purchase and installation, or implementation, of advanced industrial technology at an eligible facility;
2. Retrofits, upgrades to, or operational improvements at an eligible facility to install or implement advanced industrial technology; or
3. Engineering studies and other work needed to prepare an eligible facility for (1) or (2).

## Eligible facility

“[A] domestic, non-Federal, nonpower industrial or manufacturing facility engaged in energy-intensive industrial processes, including production processes for iron, steel, steel mill products, aluminum, cement, concrete, glass, pulp, paper, industrial ceramics, chemicals, and other energy intensive industrial processes, as determined by the Secretary.”

# Advanced Industrial Technologies

- ▶ Industrial production processes that:
  - ▷ **Achieve emissions reduction**
    - ▶ high emissions industrial materials production
    - ▶ medium- and high-temperature heat generation, or
    - ▶ chemical production processes;
  - ▷ Leverage
    - ▶ **smart manufacturing** technologies and principles
    - ▶ digital manufacturing technologies
    - ▶ advanced data analytics
  - ▷ Use **sustainable manufacturing** to
    - ▶ minimize negative environmental impacts while conserving energy and resources; and
    - ▶ increase the energy efficiency of industrial processes;

# Advanced Industrial Technologies (*cont'd*)

- ▶ **Alternative materials** that produce **fewer emissions** during production and use
- ▶ Development of **net-zero emissions liquid and gaseous fuels**
- ▶ Emissions reduction in
  - ▷ Shipping
  - ▷ Aviation
  - ▷ long distance **transportation**
- ▶ **Carbon capture** technologies for industrial processes
- ▶ Other technologies that achieve **net-zero emissions** in nonpower industrial sectors (as determined by the Secretary, Director)

# Extension of the Competitive Advanced Energy Project Credit (§ 48C)

- ▶ \$10 billion in competitive 30% tax credits
- ▶ \$4 billion reserved for projects in “energy communities”
  - ▷ Coal mines have closed
  - ▷ Coal-fired power plants retired
- ▶ Program requires taxpayers to apply for credits in a two-stage process.
  - ▷ Submit a concept paper by July 31, 2023.
    - ▶ Department of Energy (DOE) reviews concept paper and encourages or discourages an application.
  - ▷ Submit applications by a date TBD.
    - ▶ DOE reviews applications and provides recommendations and a ranking of applications to the IRS.
    - ▶ IRS accepts or denies applications for the tax credits.
  - ▷ Taxpayers must submit both a concept paper and application to be eligible.

# § 48C Eligible Projects

- ▶ Re-equip, expand, or establish an industrial or manufacturing facility for the production or recycling of specified energy property
  - ▷ Ex: property designed for use in the production of solar, wind, geothermal, or other renewable energy resources; fuel cells, microturbines, or energy storage systems and components; carbon capture equipment
- ▶ Re-equip an industrial or manufacturing facility with equipment designed to reduce GHG emissions by at least 20 percent through installation of
  - ▷ low- or zero-carbon process heat systems,
  - ▷ carbon capture, transport, utilization and storage systems,
  - ▷ energy efficiency and reduction in waste from industrial processes, or
  - ▷ any other industrial technology designed to reduce GHG, as determined by Treasury
- ▶ Re-equip, expand, or establish an industrial facility for the processing, refining, or recycling of critical materials

# Advanced Manufacturing Production Credit (§ 45X)

- ▶ Production Credits for manufacture of certain clean energy components.
  - ▷ Solar energy components (cells, PV wafers, solar-grade polysilicon, polymeric backsheet, and modules).
  - ▷ Wind energy components (blades, nacelles, towers).
  - ▷ Inverters.
  - ▷ Qualifying battery components (electrode active materials, battery cells, battery modules).
  - ▷ Critical minerals.
- ▶ Transferability of credits.
- ▶ Phase out of credits beginning in 2030.



# EV Funding under IRA

# Qualified Commercial Clean Energy Vehicles (Section 13403 of the Act)

- ▶ Credit for a qualified commercial vehicle is a lesser of 30% or the excess of the purchase price over a comparable conventional vehicle.
- ▶ Capped at \$7,500 for vehicles having a gross weight of less than 14,000 pounds and \$40,000 for other commercial vehicles.
- ▶ The tax benefits available for commercial vehicles favor medium size-commercial vehicles given the \$40,000 cap.

# Alternative Fueling and Property Credit (Section 13404 of the Act)

- ▶ The Act extends the existing 30% credit for electric vehicle charging stations in census tracts designated as either low-income or non-urban.
- ▶ Credit is lowered to 6% if the charging station does not meet wage and apprenticeship requirements.
- ▶ Increases the 30% credit limit to \$100,000 for qualified charging stations.
- ▶ Includes, for the first time, a bi-directional charging equipment.
- ▶ Bi-directional equipment both charges vehicle and allows discharge from the vehicle to other loads.

# Infrastructure Act EV Grants for Charging and Fueling

- ▶ Grant Programs
  - ▷ Alternative Fuel Corridor Grants (Corridor Program)
  - ▷ Community Charging and Fueling Grants (Community Program)
- ▶ \$2.5 billion funding over five years
  - ▷ \$700 million available in FY 2023
  - ▷ Split evenly between Community (\$350M) and Corridor Grants (\$350M)
- ▶ States, metropolitan planning organizations, local governments, special purpose districts or public authorities with a transportation function, **Indian tribes** and territories are eligible.
- ▶ Federal share up to 80% of total project cost.

# Workforce Development and Business Owner Training Programs

# Energy Auditor Training Grant Program

- ▶ \$40 million available for grants to states to train individuals to conduct energy audits or surveys of commercial and residential buildings to build the clean energy workforce, save customers money on their energy bills, and reduce pollution from building energy use.
- ▶ Eligible Uses
  - ▷ To cover any cost associated with individuals being trained or certified to conduct energy audits by a state or state-certified third-party training program; and
  - ▷ To pay the wages of a trainee during the period in which the trainee receives training and certification.
- ▶ Estimated application opening date from DOE website is Q1 2023.

# Career Skills Training Program

- ▶ \$10 million for grants to non-profit partnerships
- ▶ Aimed at paying the federal share of career skills training programs under which students concurrently receive classroom instruction and on-the-job training for the purpose of obtaining an industry-related certification to install energy efficient building technologies.
- ▶ Estimated application opening date from DOE website is Q1 2023.

# Building Training & Assessment Centers

- ▶ \$10 million for grants to higher-education institutions
- ▶ Establish building training and assessment centers to educate and train building technicians and engineers on implementing modern building technologies
- ▶ Eligible Uses
  - ▷ To identify opportunities for optimizing energy efficiency and environmental performance in buildings
  - ▷ To promote the application of emerging concepts and technologies in commercial and institutional buildings
  - ▷ To train engineers, architects, building scientists, building energy permitting and enforcement officials, and building technicians in energy-efficient design and operation
  - ▷ To assist institutions of higher education and Tribal Colleges or Universities in training building technicians
  - ▷ To promote research and development for the use of alternative energy sources and distributed generation to supply heat and power for buildings, particularly energy-intensive buildings
  - ▷ To coordinate with and assist State-accredited technical training centers, community colleges, Tribal Colleges or Universities, and local offices of the National Institute of Food and Agriculture and ensure appropriate services are provided to each region of the United States.
- ▶ Estimated application opening date stated on DOE website is Q4 2022.



# State-Based Home Energy Efficiency Contractor Training Grant Program

- ▶ \$200 million for grants to states
- ▶ Available until 2031
- ▶ To develop and implement a state program to provide training and education to contractors involved in the installation of home energy efficiency and electrification improvements as part of an approved state energy conservation plan under the State Energy Program
  - ▷ Includes improvements eligible for rebates under HOMES or high-efficiency electric home rebate programs
- ▶ Eligible uses
  - ▷ Reduce the cost of training contractor employees;
  - ▷ Provide testing and certification of contractors trained and educated under a state program developed and implemented under this grant program,
  - ▷ Partner with nonprofit organizations to develop and implement a state program pursuant to subsection

## Questions?



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