



ELFA's Climate Finance Working Group Presents: a Briefing of the Inflation Reduction Act

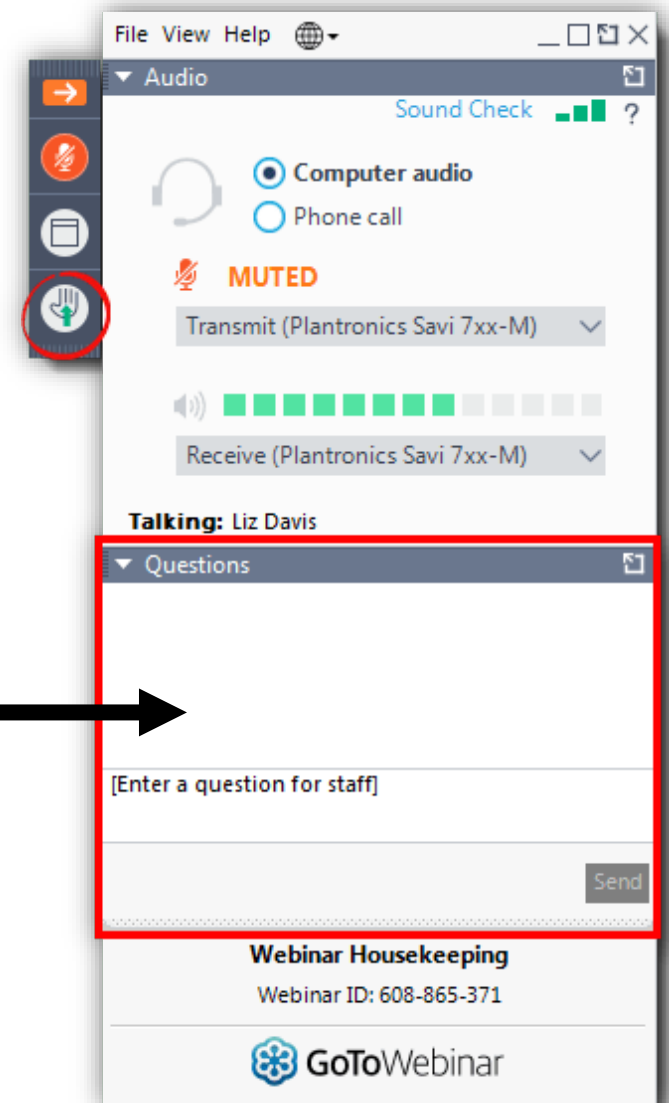
June 22, 2023

Housekeeping



Today's web seminar is being recorded.

All questions should be submitted via the Questions Panel.



Welcome and Introductions



Patricia Voorhees

*Director, Strategic Consulting
and M&A Advisory*
The Alta Group
Chair, CFWG



Carla Frisch

*Acting Executive Director
and Principal Deputy
Director*
DOE



U.S. DEPARTMENT OF
ENERGY

Office of
Policy

How Federal Policy Incentivizes Clean Energy Investments: Opportunities with the Inflation Reduction Act

Carla Frisch | Acting Executive Director
and Principal Deputy Director
Office of Policy, U.S. Department of Energy

Thursday, June 22nd 2023





Investing in America

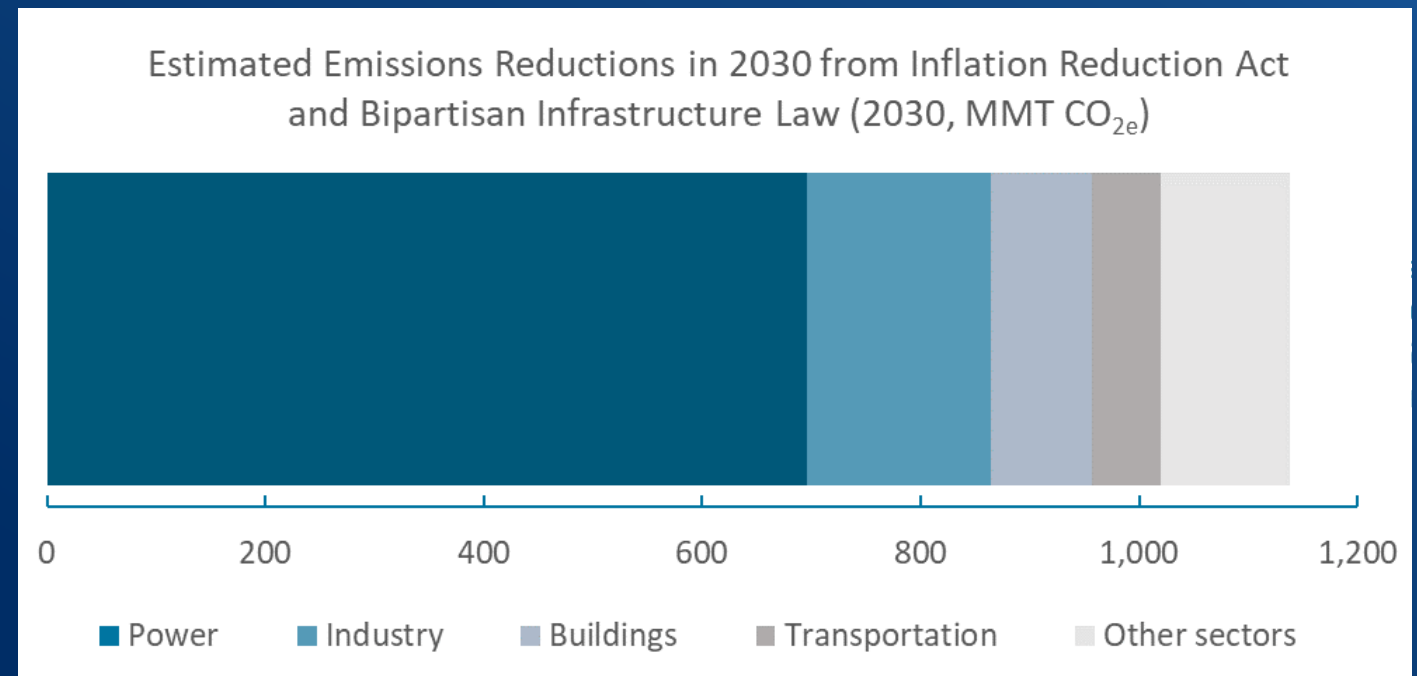
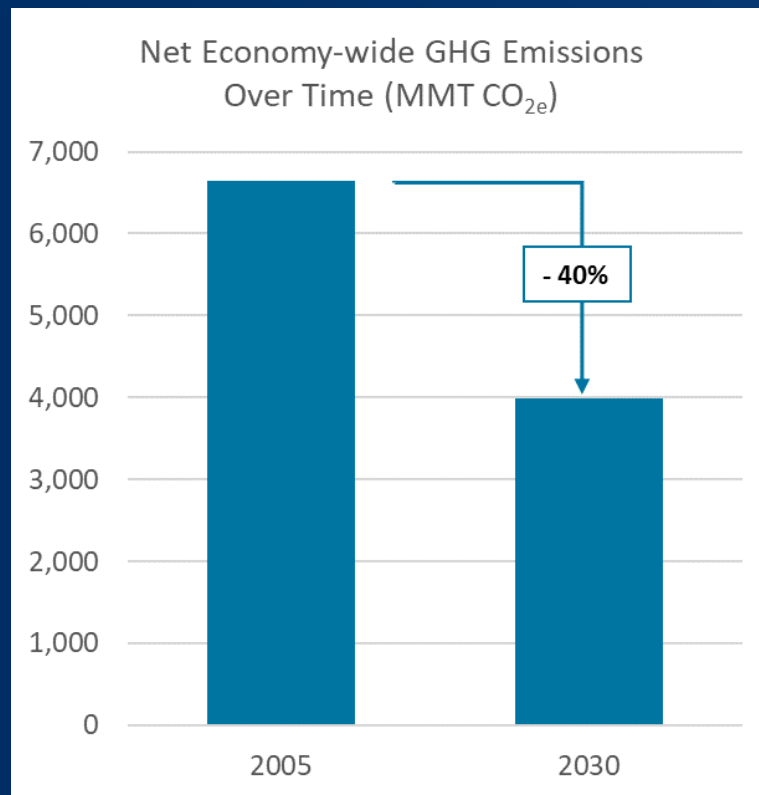
- 1. Bipartisan Infrastructure Law** (Nov 2021) makes the largest long-term investment in our nation's infrastructure in nearly a century
- 2. CHIPS and Science Act** (July 2022) invests in cutting-edge science and innovation to boost American competitiveness, including for semiconductors, and to bring jobs and supply chains home
- 3. Inflation Reduction Act or IRA** (Aug 2022) breathes life into our clean energy economy by incentivizing deployment of clean technologies and lowering energy costs for American families

Inflation Reduction Act is History-Making Policy

- Largest climate and clean energy investment in U.S. history
- Provides 10 years of certain clean energy financial support to manufacturers, installers, investors, and consumers
- Delivers historic focus on domestic job creation with strong incentives for prevailing wages and apprenticeships
- Saves American families thousands of dollars in home and transportation energy costs
- Extra benefits for low- and middle-income consumers, historically underserved communities, and communities most impacted by transition to clean energy



IRA and BIL's ~40% GHG pollution reduction helps position U.S. to reach overall climate goals



[The Inflation Reduction Act Drives Significant Emissions Reductions and Positions America to Reach Our Climate Goals | Department of Energy](#)

What's in the Inflation Reduction Act?

IRA includes two major buckets of energy policy:

- **Tax credits:** New and updated tax credits will save everyday consumers and businesses thousands of dollars on electricity while insulating them from shifting fossil fuel prices
- **New programs and loans:** New energy and climate programs work alongside tax credits to support projects in disadvantaged communities



Industrial Sector

IRA Tax Credits for Manufacturing: 48C ITC

Advanced Energy Project Investment Tax Credit (48C)

- Provides \$10 billion to expand U.S. manufacturing capacity and create quality jobs for supplying and recycling clean energy technologies.
- Provides tax incentives for projects:
 - Clean energy manufacturing
 - Industrial facility emissions reductions of at least 20%
 - Critical minerals



IRA Tax Credits for Manufacturing: 45X

Advanced Manufacturing Production Tax Credit (45X)

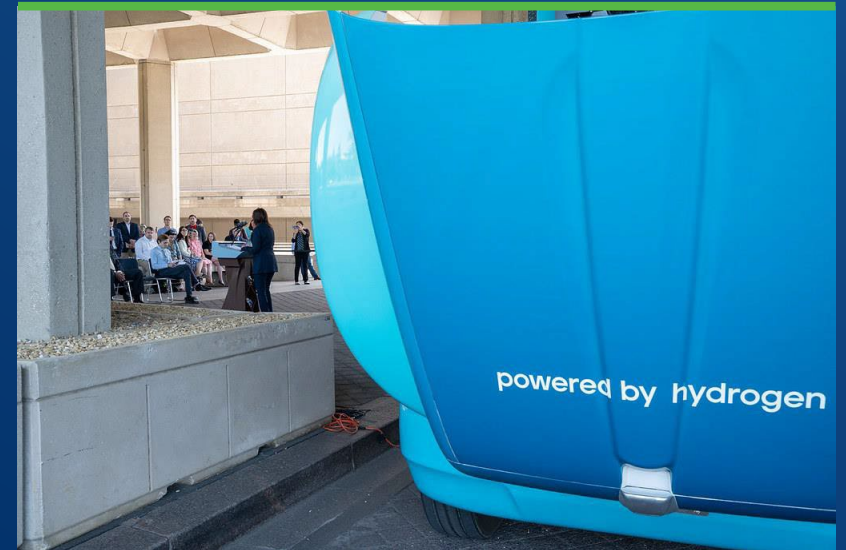
- Provides per-unit tax credit for clean energy components for:
 - **Solar**
 - **Battery**
 - **Wind**
 - **Inverter**
 - **Critical minerals**



Clean Hydrogen

Clean Hydrogen Production Tax Credit (45V)

- Hydrogen must be produced in U.S.
- Applicable amount ranges from \$0.60-\$3 per kilogram of qualified clean hydrogen – *the less carbon intensive the hydrogen the greater the credit*
- Projects must be constructed before 2033



Carbon Capture, Utilization & Sequestration (CCUS)

Carbon Oxide Sequestration Credit (45Q)

- Expanded incentives for CCUS, which will help U.S. reduce emissions from heavy industry and meet 2050 emissions goals. Provisions include:
 - Expansion of 45Q tax credit for CCUS (electric power & industrial) and Direct Air Capture
 - Credit values vary based on technology type and methods of carbon storage and use

IRA Offers Funding Opportunities for Industrial Decarbonization: Open for Applications Now (through 8/11/23)

Advanced Industrial Facilities Deployment Program provides ~ \$6B in competitive support to owners/operators of energy-intensive facilities to slash emissions:

1. Purchase, installation or implementation of advanced industrial technologies at eligible facilities
2. Retrofits, upgrades, or operational improvements at eligible facilities to install or implement advanced industrial technologies
3. Engineering studies and other work to prepare eligible facilities for above activities

More information here: <https://www.energy.gov/oced/advanced-industrial-facilities-deployment-program>

Buildings

Tax Incentives for Commercial Buildings

Commercial Buildings Energy-Efficiency Tax Deduction (179D)

- Projects that install select energy efficiency upgrades can receive a tax credit for \$0.50-\$1 per sqft - *the greater the energy reduction the greater the credit*



Consumer Energy Cost Savings

energy.gov/save

Home Energy Equipment tax credits:

- Up to 30% credit for residential rooftop solar panel credits saving ~ \$7,500
- The average household can save more than \$9,000 over the lifetime of their solar system, or nearly \$400 annually

Incentives for Energy Saving Investments:

- Up to a \$2,000 tax credit for efficient heating, cooling, and water heating equipment, such as an electric heat pump.
- Up to a \$1,200 tax credit for other home improvements that reduce energy waste

IRA Expands Financing for Energy-Efficient Buildings

- **\$1 billion** for state and local building code adoption/implementation
- **\$250 million** for General Services Administration (GSA) Federal Building Investments
 - Funding to convert GSA-owned or managed buildings to high performance green buildings.
- **\$837 million** for U.S. Department of Housing & Urban Development (HUD) Efficiency or Climate Resilience
 - Funding for HUD to improve energy or water efficiency, indoor air quality or sustainability of eligible properties.



DOE Resource: Commercial Property Assessed Clean Energy (CPACE)

- Financing structure for building owners to borrow money for energy efficiency, renewable energy & make repayments via assessment on property tax bill
- Just launched: 2023 Better Buildings Summer Webinar Series which covers best practices & cost-effective strategies to approach sustainability & energy performance

CPACE may be a right fit if your organization:

- Owns or occupies facilities located in [jurisdictions](#) with CPACE programs
- Wants long-term financing (10+ years) with lower monthly payments
- Wants to invest in long-term improvements to building resiliency & reliability

Clean Electricity

Clean Electricity and Opportunities for the Electric Sector

- Extension of existing credits, with revisions, and transition to technology-neutral Production Tax Credits (PTCs) and Investment Tax Credits (ITCs)
- Provides long-term policy certainty: Emissions-based phase-out, no earlier than 2032
- New IRA provisions allow a wider variety of investors to benefit from clean electricity tax incentives through direct pay and transferability
- PTCs and ITC's can be eligible for bonuses



Clean Electricity Investment Tax Credit Example

Total Investment Tax Credit



Credit is 5x lower if not meeting wage and apprenticeship criteria

Tax credits and bonuses can stack, creating possibly large credit values.

A hypothetical 1 MW community solar facility costing \$1 million could earn a **70% tax credit** worth \$700,000

If it is owned by a tax-exempt entity, this could be a **direct cash payment** from the IRS

Clean Vehicles

New Tax Credits to Boost Electric Vehicle Deployment

- IRA provides consumers up to **\$7,500** to buy new EV (subject to Made In America & other rules) & 30% off charging equipment up to \$1,000
- IRA marks first time consumers have been offered incentive for **used electric vehicles: up to \$4,000**
- Clean commercial vehicles are also eligible for a tax credit of up to **\$40,000**



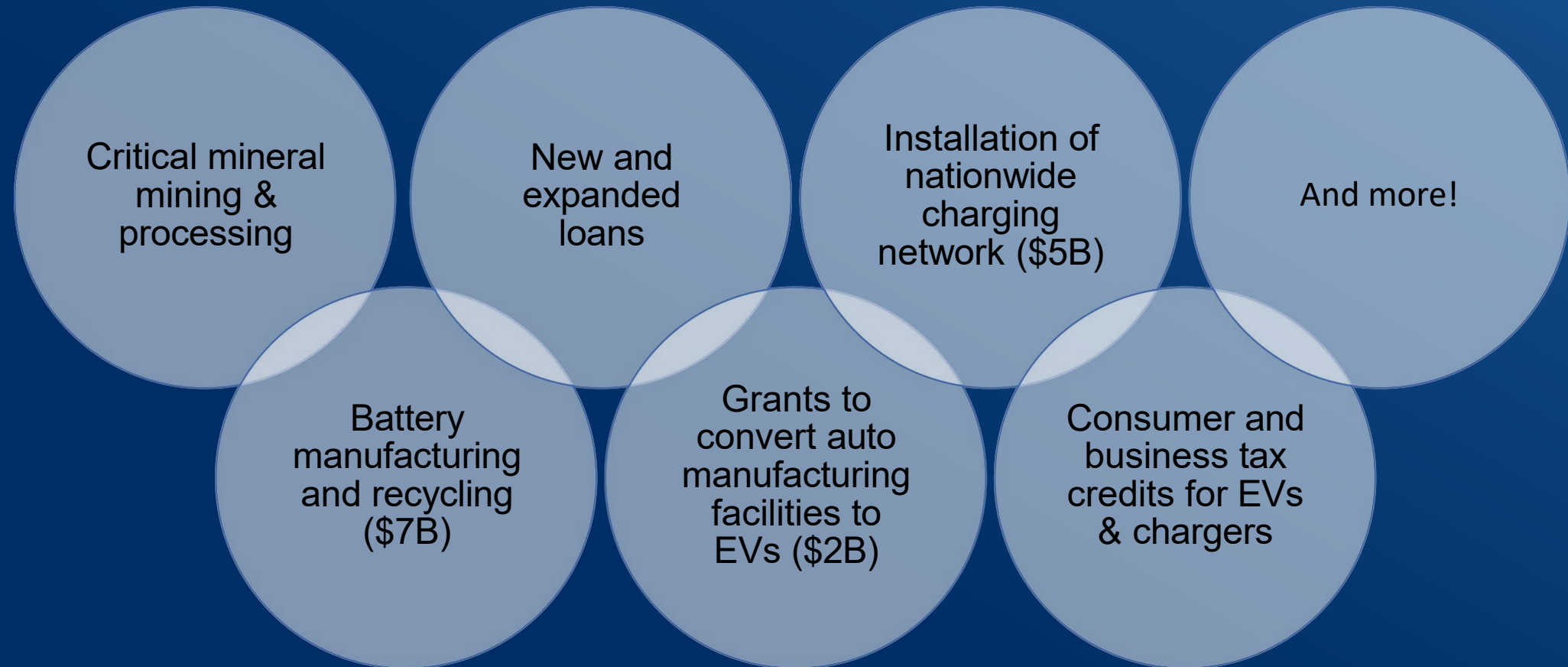
New Programs & Loans: Example in EV Manufacturing

IRA provides resources dedicated to U.S. automotive manufacturing

- **\$3 billion** for the Loan Program Office's Advanced Technology Vehicle Manufacturing
- **\$2 billion** for Domestic Manufacturing Conversion grants



Investing in Our Nation's Electric Vehicle Supply Chain Every Step of the Way



Crosscutting: IRA Clean Energy Programs and Loan Opportunities

Title 17 Clean Energy Financing: Innovative Loan Guarantees Eligibility

- Be located in U.S. Foreign ownership/sponsorship permissible as long as project is located in one of 50 states, D.C., or a U.S. territory
- Meet “Eligible Project” requirements as defined by an open solicitation in one or more of technology areas
- Employ new or significantly improved technology compared to commercial technology in service in U.S. at time the guarantee is issued
- Avoid, reduce, or sequester anthropogenic emissions of GHGs
- Provide a reasonable prospect of repayment
- Find the application here: <https://www.energy.gov/lpo/title-17-clean-energy-financing>

May 23, 2023

American-Made Batteries

New U.S. Battery Manufacturing and Supply Chain Investments Announced Under President Biden



Over \$100 billion announced so far



Over 160 new or expanded minerals, materials processing and manufacturing facilities



Enough to power 10 million EVs each year



Over 70,000 new jobs



Federal Investments

- Recycling & Upcycling
- Materials Separation & Processing
- Component Manufacturing

■ Private Sector Investments



Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.

May 23, 2023

American-Made Offshore Wind

New US Offshore Wind Manufacturing Facility, Port, and Vessel Investments Announced Under President Biden



Nearly \$3.5 billion announced manufacturing and port investments



Investments in 12 manufacturing facilities and 13 ports



17 new vessels being built in 7 different states



Thousands of potential new jobs



Port
 Manufacturing
 Vessel Construction



Based on publicly available information. Many facilities are conditional on financing, funding, site control, and other factors.

Not included in the map are facilities announced as explicitly conditional on winning a power-sales contract. Numbers within a single pin denote multiple investments or facilities at a single location.

**Learn more about federal
energy policy by visiting:**

energy.gov/infrastructure

energy.gov/save



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Thank You!



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