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2023 CONGRESS: POTENTIAL IMPACT ON EVS

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Agenda

- Introductions
- History of Electric Vehicles
- Inflation Reduction Act: Vehicle Provisions
- Electric Vehicle Tax Credit Qualifications under the Inflation Reduction Act

Presenters



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History of Electric Vehicles

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Electric Vehicles – A Little History

- The electric vehicle is not a recent development. In fact, the electric vehicle has been around for over 100 years.
- The years 1899 and 1900 were the high point for electric vehicles in America, when they outsold all other types of cars. Electric vehicles had many advantages over their competitors in the early 1900s.
- Electric vehicles did not have the vibration, smell and noise associated with gasoline cars.
- Changing gears on gasoline cars was the most difficult part of driving; in contrast, electric vehicles did not require gear changes.
- Electric vehicles enjoyed success into the 1920s with production peaking in 1912*

... So What Happened?

** Source: History of Electric Cars, Idaho National Laboratory*

Electric Vehicles – A Little History

- Decline of the electric vehicle was brought about by several major developments:
 - The discovery of Texas crude oil reduced the price of gasoline, making it affordable to the average consumer.
 - The invention of the electric starter by Charles Kettering in 1912 eliminated the need for the hand crank to start internal combustion engines.
 - Initiation of mass production of internal combustion engine vehicles by Henry Ford made these vehicles widely available and affordable in the \$500 to \$1,000 price range.
 - By contrast, the price of an electric vehicle continued to rise. In 1912, an electric roadster sold for \$1,750 while a gasoline car sold for \$650.

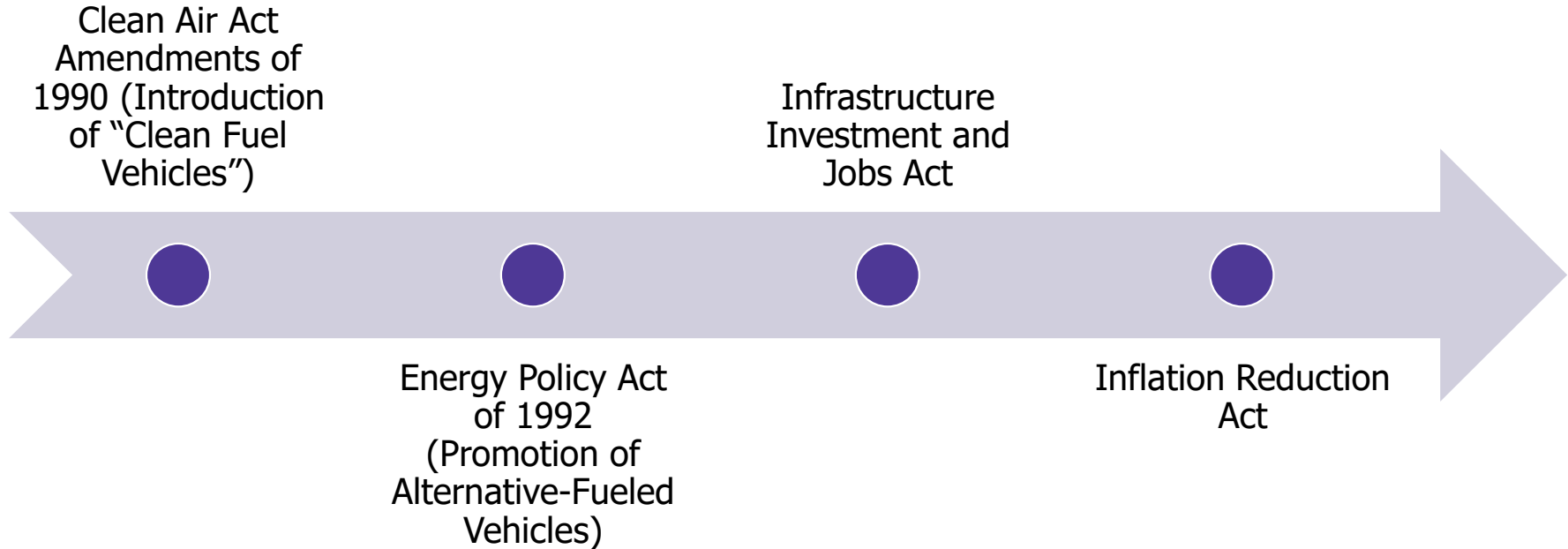
And ...

Electric Vehicles – A Little History

Enter Congress....

By the 1920s, America had a better system of roads connecting cities, and bringing with it the need for longer-range vehicles and culminating in the Congressional authorization of the Interstate and Defense Highways System.

More Recent History



Congressional Concerns Going Forward

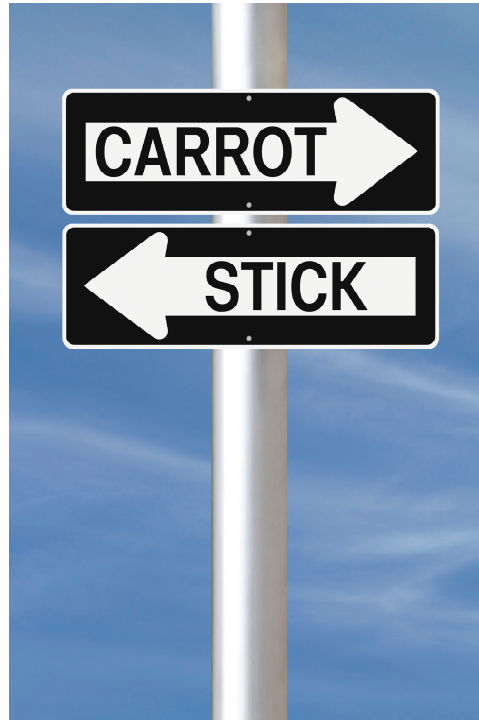
- Battery Production (How and Where)
- Critical Minerals (Domestic v. Foreign Sourced)
- Tax Credit Incentives (Will They Work)
- Advanced Manufacturing
- Free Trade Agreements v. Trade Agreements
- Deployment of Charging Stations
- Labor Provisions (Prevailing Wage and Apprenticeship Requirement)
- China

Inflation Reduction Act: Vehicle Provisions

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Carrot and Stick Approach

- EPA issues new emissions regulations for post-model year 2026 vehicles



- Consumer tax credits for vehicle purchase
- Investment and production tax credits
- New grant and loan programs

Key Drivers in Push to Net-Zero Emissions

**Manufacturing
Jobs**

**Climate Change
and Clean
Energy**

Equity

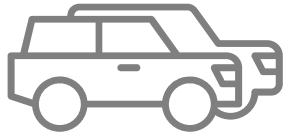
**Natural
Resources**

**Global
Competitiveness**

EPA Proposed New Rules - Standards

Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles

- This rule proposes emission standards for **passenger cars** and 'light' trucks starting with **model year 2027**
- The average target emission standard for light-duty vehicles is projected to be **82 grams/mile of CO₂**
- The average target emission standard for medium-duty vehicles is projected to be **275 grams/mile of CO₂**



Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3

- This rule proposes greenhouse gas emission standards for heavy-duty vehicles such as delivery trucks, dump trucks, and school buses
- This rule represents phase 3 of the EPA's 'Clean Trucks Plan'
- The emission standards for heavy-duty vehicles vary based on type of vehicle but range from **97 grams/ton-mile of CO₂ to 225 grams/ton-mile of CO₂**



EPA Proposed New Rules – Impact on Fleet



Criteria pollutants

- For light-duty vehicles, the EPA proposed lowering non-methane organic gas standards to an average level of 12 mg/mile, a 60% reduction from current levels



Sunset of credit program

- The EPA is proposing to sunset the off-cycle credit program for both light and medium duty vehicles; the program was designed to provide credit for the use of new technology to reduce emissions



Electric vehicle impact

- The EPA is projecting that the standards in the proposed rule could result in electric vehicles making up 67% of light-duty, 46% of medium-duty, 50% of new bus and 25% of heavy truck new vehicle sales in 2032

Advanced Technology Vehicle Manufacturing Direct Loan Program

FUNDING: \$3 billion/\$40 billion loan authority

STATUS: Active under the Energy Independence and Security Act of 2007

PROGRAM DESCRIPTION

- This loan program provides funds for the costs of providing loans to reequip, expand, or establish a manufacturing facility in the United States that produces, or for engineering integration performed in the United States of, advanced technology vehicles which emit low or zero exhaust emissions of greenhouse gases
- The program is legislated to remain open until September 30, 2028 and will be operated under the guidelines set by the Energy Independence and Security Act of 2007
- Further, this provision eliminates the Loan Program cap of \$25 billion established under that act
- The 2021 Infrastructure Investment and Jobs Act amended the ATVM program eligibility to include commercial medium and heavy-duty vehicles, rail, maritime vessels, aircraft, and hyperloop technology. IIJA also increased the technical requirements to qualify from the original 2007 statute

Domestic Conversion Grant Program

FUNDING: \$2 billion

STATUS: Department of Energy Request for Information on April 11, 2023

PROGRAM DESCRIPTION

- This program established by the IRA appropriates money for the domestic production of “efficient hybrid, plug-in electric hybrid, plug-in electric drive, and hydrogen fuel cell electric vehicles” which meet the guidelines set for these vehicles by section 172 of the Energy Policy Act of 2005, (a program to encourage domestic production and sales of efficient hybrid and advanced diesel vehicles and components of those vehicles)
 - Priority shall be given to the refurbishment or retooling of manufacturing facilities that have recently ceased operation or will cease operation soon
- The program includes a cost-share element where the recipient of the grant must provide no less than 50% of the cost of the project

48C Advanced Energy Project Credit

FUNDING: \$6.2 billion (tax credits)

STATUS: Initial guidance with deadlines published, further detail expected from Treasury to establish program and rules

PROGRAM DESCRIPTION

- The IRA expands the scope of section 48C of the Internal Revenue Code of 1986 which is a tax credit for 30% of the amount invested in new or upgraded factories to build specified renewable energy components
- The definition of “qualifying advanced energy project” under section 48C is expanded from strictly facilities that manufacture certain renewable energy components to include facilities that also recycle qualifying property
- Also eligible are technology, components, and materials for electric or fuel cell vehicles and their associated charging or refueling infrastructure, including heavy-duty vehicles
- The expansion of section 48C would broadly encompass all other such properties designed to reduce greenhouse gas emissions (including any property that re-equips existing infrastructure to reduce greenhouse gas emissions by at least 20%)
- 40% of appropriated funds is earmarked for factories in “energy communities” or those census tracts which a coal mine or coal-fired electricity generation plant has been closed since Jan 1, 2000
- IRA sets a labor requirement for eligibility such that the construction of, or upgrade to, the factory will have to be done by workers who are paid the equivalent of union wages with apprentices hired for the construction
- May not benefit from the expanded section 48C credit if the investment in the factory already qualifies for a tax credit under section 48D

45X Advanced Manufacturing Production Credit

FUNDING: \$30.6 billion
(tax credits)

STATUS: Pending action from Treasury and IRS for development of rule

PROGRAM DESCRIPTION

- Provides a tax credit for each eligible component produced in the US and sold by a manufacturer. The credit would apply to components produced and sold after December 31, 2022, and would begin to phase out starting in 2030
- Eligible components under section 45X include electrode active materials, battery cells, battery modules, and certain critical minerals
- The amount of the total credit is the sum of the amounts corresponding to each eligible component as set in the IRA
- Minerals considered “applicable critical minerals” are allotted a tax credit amount per mineral shall be 10% of the costs incurred by the taxpayer with respect to the production of such mineral

30D Clean Vehicle Credit

FUNDING: \$7.5 billion (tax credits)

STATUS: Final Domestic Assembly rule in effect, other rules to take effect Jan 1, 2023, White Paper published, further guidance on battery components and critical minerals coming soon

PROGRAM DESCRIPTION

- The new Clean Vehicle Credit modifies existing consumer tax credits for electric vehicles
- Allows taxpayers to claim a tax credit up to \$7,500 for qualifying new clean vehicles
 - \$3,750 of the credit is now predicated on a requirement that a certain percentage of critical minerals contained in the battery be extracted or processed in a country with which the US has a free trade agreement; this percentage starts at 40% in 2023 and scales up to 80% by 2027 for vehicles
 - \$3,750 of the credit is now predicated on a requirement that a certain percentage of the component contained in the battery were manufactured or assembled in North America; that percentage starts at 50% for 2023 and scales up to 100% by 2029
 - Vehicle must have 4 wheels and a gross vehicle weight of fewer than 14,000 pounds
 - Vehicle must be propelled to a "significant extent" by an electric motor that draws power from a battery with no less than 7kwh of capacity and can be charged externally
 - Sold by a licensed dealer in the US that meets certain manufacturing requirements sourced to the US and/or North America
 - Modified Adjust Gross Income must not exceed \$150,000 or \$300,000 for married, joint-filers
 - The manufacturer's suggested retail price (MSRP) cannot exceed \$80,000 for vans, sport utility vehicles, and pickup trucks; all other vehicles are limited to \$55,000
- The new rules for this credit will come into effect on vehicles purchased after December 31, 2022
- This new tax credit is active through the end of 2032

Credit for Previously-Owned Clean Vehicles

FUNDING: \$1.3 billion (tax credits)

STATUS: Enacted, Credit Available Starting January 1, 2023

PROGRAM DESCRIPTION

- A new tax credit for purchasers of a previously-owned clean vehicle
 - \$4,000 or the amount equal to 30 percent of the sale price with respect to such vehicle (whichever is less)
 - Subject to limitation based on Modified Adjusted Gross Income; those eligible for the credit must have a MAGI of less than \$75,000 annually or \$150,000 for joint-filers
 - Previously-owned clean vehicle must meet certain requirements: the model year of which is at least 2 years earlier than the calendar year in which the taxpayer acquires such vehicle, the original use of which commences with a person other than the taxpayer, is acquired by the taxpayer in a qualified sale, and has a gross vehicle weight rating of fewer than 14,000 pounds
 - A qualified sale is: by a dealer, for a sale price of less than \$25,000, and which is the first transfer enactment of the IRA to a qualified buyer other than the person with whom the original use of such vehicle commenced
- The credit will expire after December 31, 2032

Qualified Commercial Clean Vehicle Credit

FUNDING: \$3.5 billion (tax credits)

STATUS: Enacted, Credit Available Starting January 1, 2023

PROGRAM DESCRIPTION

- Establishes a new business tax credit of up to 15% of the cost of a commercial clean vehicle (or the incremental cost of the purchase price for a comparable vehicle powered solely by a gasoline or a diesel internal combustion engine)
 - Increases to 30% if the vehicle is not powered by a gasoline or a diesel internal combustion engine
 - Credit is limited to \$7,500 per vehicle weighing less than 14,000 pounds, and \$40,000 for a larger vehicle
 - Must meet the definition as a motor vehicle for purposes of title II of the Clean Air Act and manufactured primarily for use on public streets, roads, and highways, or qualify as “mobile machinery”
 - Must be propelled to a significant extent by an electric motor using a battery with a minimum capacity of 15 kWh (7 kWh if the vehicle weighs less than 14,000 pounds) and capable of being recharged from an external source of electricity, or satisfies certain requirements for “qualified fuel cell motor vehicles”

Labor Guidance

- Overview

- On November 29, 2022, the Treasury Department shared labor standards required for firms to utilize the clean energy and climate tax incentives included in the Inflation Reduction Act
- The prevailing wage and apprenticeship requirements will be applied to **facilities that start construction on or after January 29, 2023**

Prevailing wage and apprenticeship provisions apply to the following tax credits & incentives

- Alternative Fuel Refueling Property Credit
- **Production Tax Credit**
- Credit for Carbon Oxide Sequestration
- Credit for Production of Clean Hydrogen
- Clean Fuel Production Credit
- Investment Tax Credit
- **Advanced Energy Project Credit**
- Energy Efficient Commercial Buildings Deduction

Prevailing wage provisions apply to the following tax credits & incentives

- New Energy Efficient Home Credit
- Zero-Emission Nuclear Power Production Credit



Prevailing wage guidance

- Overview

- The prevailing wage is the minimum wage rate that must be paid to laborers and mechanics who are responsible for the construction of a facility, project, property, or equipment

Workers who must be paid at least a prevailing wage

- Workers who perform physical manual labor, such as electricians, equipment workers, and ironworkers

Workers who do not need to be paid a prevailing wage

- Workers whose responsibilities are more administrative, executive, or clerical, such as timekeepers, inspectors, or engineers

Types of facilities where the prevailing wage guidance is applied

- Facilities producing electricity from certain renewable resources
- Energy storage technologies
- Industrial carbon capture or direct air capture
- Energy efficient commercial buildings
- Dwellings that meet certain Energy Star efficiency standards
- Certain qualified nuclear power facilities
- Alternative vehicle refueling properties
- Qualifying advanced energy projects
- Clean hydrogen facilities
- Clean fuel production facilities



Apprenticeship guidance

- Overview
 - The apprenticeship requirements ensure that the construction projects include a required number of qualified apprentices, who are working a required number of hours
 - In order to meet the apprenticeship guidance, users are required to document records of request of qualified apprentices from registered apprenticeship programs and whether their requests were accepted or denied

Qualified apprentice

- A qualified apprentice is an individual who is a participating in a Registered Apprenticeship program
- Employers are allowed to sponsor their own Registered Apprenticeship programs and hire qualified apprentices through their new program
 - The employer would need to register their program with a Registration Agency, Office of Apprenticeship, or a State Apprenticeship Agency

Types of records needed to validate compliance with the apprenticeship guidance

- Apprentice to journeyworker ratio
- Apprentice labor hours for construction, alteration or repair
- Apprenticeship participation requirements
- Documents illustrating requests for apprenticeships from Registered Apprenticeship programs as well as the responses from the programs to the request

Electric Vehicle Tax Credit Qualifications under the Inflation Reduction Act

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2022 Inflation Reduction Act (IRA)

- The Inflation Reduction Act of 2022 invests more than \$400 billion in US spending on a range of climate change, healthcare, electric vehicle, and prescription drug pricing initiatives through a series of tax breaks and capital deployment.
- Beginning after August 16, 2022, purchasers of qualified electric vehicles are eligible for a tax credit of up to \$7,500 per vehicle for which final assembly occurred in North America.
- Beginning in 2023, the IRA introduced further changes to the tax credit available for electric vehicles under the Internal Revenue Code (Code):
 - Removal of the sales cap (under Section 30D)
 - Credit eligibility to be based on purchaser income, final assembly location, and critical mineral and battery component sourcing and manufacturing (under Section 30D)
 - A new credit for previously owned clean vehicles (under Section 25E)
 - A new credit for qualified commercial clean vehicles (under Section 45W)

2022 Inflation Reduction Act (IRA)

- On March 31, 2023 the US Department of the Treasury (Treasury) and Internal Revenue Service released proposed guidance on the new clean vehicle provisions of the IRA in a Notice of Proposed Rulemaking.
- Eligible vehicles must undergo final assembly in North America and must not exceed a Manufacturers Suggested Retail Price of \$80,000 for a van, pickup truck, or sport utility vehicle, or \$55,000 for any other vehicle.
- Eligible vehicles meeting the above requirements, must also meet both the critical mineral and battery component requirements in order to be eligible for the maximum \$7,500 credit. Eligible vehicles that meet one of the two requirements will only be eligible for a \$3,750 credit.
- The Notice of Proposed Rulemaking was intended to clarify how manufacturers can satisfy the new requirements and took effect when the proposed guidance was published in the Federal Register on April 17, 2023.

Critical Mineral Requirement (Section 30D(e)(1)(A))

- Vehicles that meet the critical mineral requirement are eligible for a \$3,750 credit.
- The applicable percentage of the value of the critical minerals contained in the battery must be extracted or processed in the United States or a country with which the United States has a free trade agreement, or be recycled in North America. The applicable percentage to meet the requirement is based on when the vehicle is placed in service:
 - For 2023, the applicable percentage is 40%
 - For 2024, the applicable percentage is 50%
 - For 2025, the applicable percentage is 60%
 - For 2026, the applicable percentage is 70%
 - Beginning in 2027, the applicable percentage is 80%

Determining the percentage of the value of the applicable critical minerals

1. Manufacturers must determine the procurement chain or chains for each applicable critical mineral included in the battery.
 - a. Procurement chain is defined as a common sequence of extraction, processing, or recycling activities that occur in a common set of locations, concluding in the production of constituent materials
2. Manufacturers must identify qualifying critical minerals within each critical mineral procurement chain.
 - a. Qualifying critical minerals are defined as those (1) extracted or processed either in the United States or in any country with which the US has a free trade agreement in effect, or (2) recycled in North America.
3. Manufacturer must calculate the percentage of the value of qualifying critical minerals contained in a battery by dividing the total value of qualifying critical minerals by the total value of critical minerals.

Battery Component Requirement (Section 1.30D-3(b))

- Vehicles that meet the battery component requirement are eligible for a \$3,750 credit.
- The applicable percentage of the value of the battery components must be manufactured or assembled in North America:
 - For 2023, the applicable percentage is 50%.
 - For 2024 and 2025, the applicable percentage is 60%.
 - For 2026, the applicable percentage is 70%.
 - For 2027, the applicable percentage is 80%.
 - For 2028, the applicable percentage is 90%.
 - Beginning in 2029, the applicable percentage is 100%.

Determining the percentage of the value of the applicable battery components

1. Manufacturers must determine whether each battery component in a battery was manufactured or assembled in North America (a “North American Battery Component”).
 - a. North American Battery Component is defined as, a battery component for which substantially all of the manufacturing or assembly of which occurs in North America, without regard to the location of the manufacturing or assembly activities of the components that make up the particular battery component.
2. Manufacturers must determine the incremental value for each battery component.
3. Manufacturers must total the incremental value of battery components.
4. Manufacturers must calculate the “qualifying battery component content”— the percentage of the value of the battery components contained in the battery from which the electric motor of a new clean vehicle draws electricity that were manufactured or assembled in North America.

Questions and Issues Remain

Free Trade Agreements

Constituent Materials

Entity of Foreign Concern

Transferability of Credits

Consumer Uncertainty

Questions?

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Biography



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Timothy P. Lynch directs all activities, including the strategic and operational functions, of the Washington Strategic Government Relations and Counseling Practice. He monitors legislative and political trends and developments, as well as managing lobbying registration and reporting, visits to government officials, and relationships with trade associations. In addition, Morgan Lewis's clients seek his advice on government relations and public policy issues.

Tim brings to his role 25 years of management experience in corporate and trade association government affairs. Prior to joining Morgan Lewis, he served as senior vice president and chief lobbyist at the American Trucking Associations (ATA), where he was responsible for ATA's advocacy efforts, strategic planning, public outreach, state affiliates, and safety promotion programs. Tim is an active member of Morgan Lewis's automotive and mobility industry team focusing on emerging issues in the electric vehicle and autonomous vehicle space.

Tim has served as vice president, legislative affairs for the ATA; president and CEO of Motor Freight Carriers Association; vice president, government affairs of Roadway Services, Inc.; federal affairs representative of American Natural Resources, Inc.; and as a professional staff member of the US Senate committee on Commerce, Science, and Transportation.

Biography



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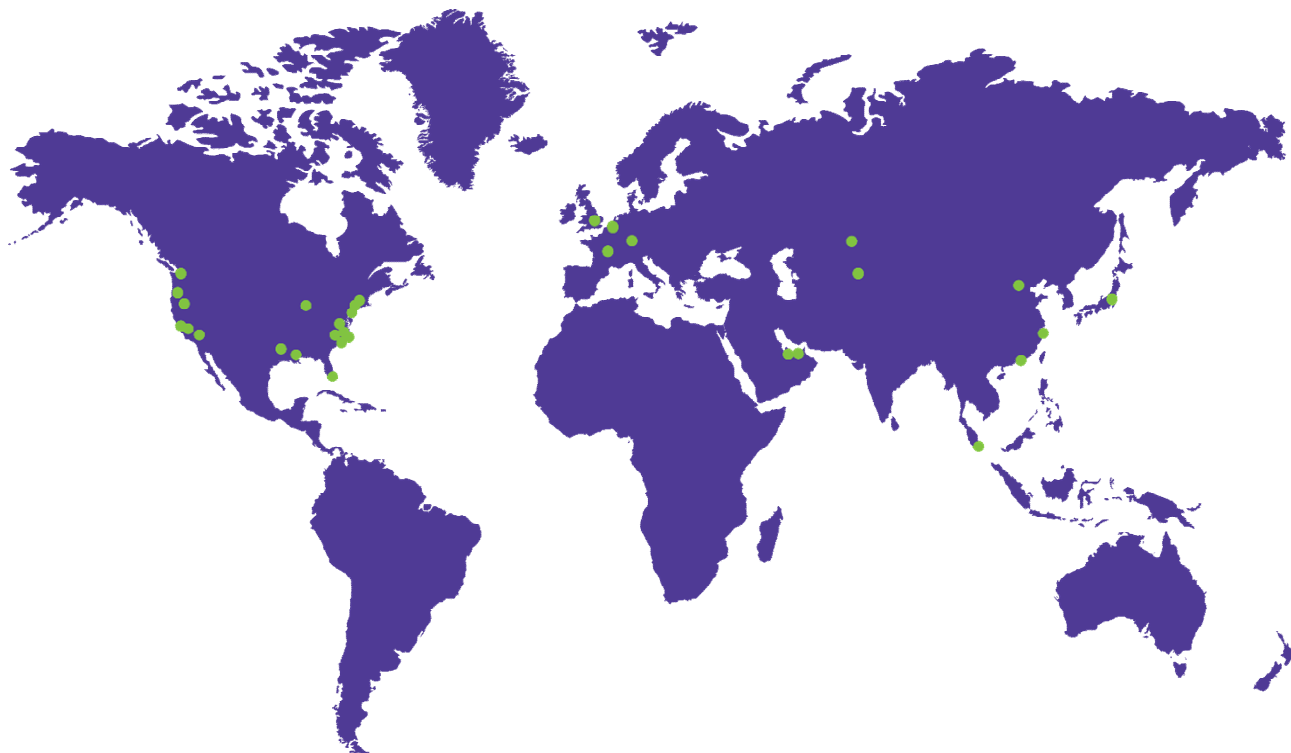
Maggie E. Curran focuses her practice on the energy sector, counseling clients on regulatory issues and transactional matters. She represents public utilities in regulatory proceedings, including ratemaking proceedings, before the Pennsylvania Public Utility Commission. Maggie also advises public utilities, energy companies, and other clients in the development of renewable energy projects to help them engage in the clean energy transition and reach their sustainability goals.

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