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The Inflation Reduction Act of 2022: Key Provisions and Implications for Corporate Climate Action

July 29, 2022

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Introduction

On Wednesday, July 27, Senator Joe Manchin (D-WV) shocked policy observers and policymakers alike by announcing his support for a new version of the Democrats' massive reconciliation bill. Manchin, thought to represent the critical 50th vote for the bill in the Senate, had been opposed to earlier versions, and that opposition seemed to have doomed hopes for major climate-related legislation in this Congress. Manchin's sudden reversal—not yet fully explained—means the bill, and climate policy momentum, have new life.

In its current form, the bill comprises over 700 pages of legislative text. In addition to climate provisions, it contains important changes to health care and tax policy, including an increase of the minimum corporate tax rate to 15%. Further changes are possible as the bill moves to a Senate vote as soon as next week, and, if it indeed passes there, to the House of Representatives. While the Senate's version is pulled rightward by the centrist tendencies of Manchin and Arizona senator Kyrsten Sinema (whose position on the revised version is still unknown), progressives in the House may attempt to pull it leftward, especially given several fossil-fuel-friendly additions that may have been what brought Manchin into the fold.

As with any major legislation, passage and signing is only the beginning. Many of the important programs this bill would establish or expand depend on agency-level rulemaking, a process which takes time and sustained political will. Nevertheless, should the Inflation Reduction Act of 2022 be enacted as law, the outlook and strategic calculus for corporate climate action will be significantly improved.

The following is a summary of major themes and important climate-related provisions in the bill as of Thursday, July 28, along with implications for corporate climate action. Not every relevant program is mentioned explicitly.

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Theme 1: Extensive support for expansion of clean energy will change the calculus for producers and purchasers alike.

The bill would allocate \$60 billion to advance the overall transition to clean energy sources and promote domestic production of those sources. It extends and expands major tax credits that support domestic production of clean and renewable sources including solar, wind, geothermal, nuclear, some hydrogen types, and energy storage:

- **The Clean Electricity Investment Tax Credit (ITC)**, which allows project owners to recoup up to 30% of investment cost through tax credits, would be extended for 10 years, after which the percentage repaid would step down to 26% in 2033 and 22% in 2034. Developers with low or no tax liability cannot receive refunds greater than their liability, but the credits can be rolled over to future years. Importantly for the overall development of a greener grid, energy storage and microgrid controller investments are now eligible for the ITC.
- **The Clean Electricity Production Tax Credit (PTC)** is also to be extended another 10 years and expanded to cover solar, nuclear, and hydrogen power in addition to wind. After 2024, the credit's value will be tied to the rate of carbon emissions reductions on the U.S. grid.
- **The Advanced Energy Project Tax Credit** is to be extended with \$10 billion in funding for the construction of new advanced energy technology production facilities.
- The bill introduces a new **Advanced Production Tax Credit** to support advanced energy technology manufacturing. The credit provides incentives for products key to energy generation, including solar components, wind components, batteries, inverters, and critical minerals.

The bill does not include tax credits for electricity transmission upgrades; however, it does allocate nearly \$3 billion for loans, grants, and departmental funding to facilitate such projects through the Department of Energy:

- \$2 billion in loans for the construction or modification of transmission facilities
- \$760 million in grants for authorities to accelerate siting decisions for interstate power lines
- \$100 million to the Department of Energy for transmission planning and analysis related to interregional and offshore wind projects

The proposed legislation also includes several other provisions aimed at expanding clean energy. These include \$5 billion in Climate Pollution Reduction grants to state, tribal, and local governments to fund emissions reduction planning and implementation, and \$2 billion in grant funding for national laboratories to conduct advanced energy technology research.

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Implications for corporate climate action:

Raise your expectations—and maybe your targets—for Scope 2 progress: Most companies can only do so much to reduce their purchased energy usage, and many efforts to reduce Scope 1 emissions lead to technology substitutions that increase demand for electricity and therefore Scope 2 emissions. Production of that electricity from cleaner sources and delivery through a reliable grid is often a necessary but largely uncontrollable factor in many corporate climate action plans. All told, the clean energy provisions included in the bill would dramatically alter the economic calculus for energy producers and, by extension, for energy purchasers and users. Companies may be able to recalibrate their expectations for Scope 2 emissions reduction if this bill becomes law.

Get to know your options for tax equity strategies: Companies interested in investing directly in clean energy development and generating Renewable Energy Certificates should take note of expanded opportunities for tax credits to defray that investment. Relatively few companies are familiar with these opportunities today; even fewer take advantage of them. This legislation could spur more to consider tax equity strategies in their broader climate plans.

Theme 2: Expanded but targeted subsidies will push the electric vehicle market over the tipping point.

The bill incentivizes the production and purchase of electric vehicles (EVs) in a variety of settings. Tax credits for personal vehicles, commercial vehicles, and municipal heavy-use vehicles such as school buses and garbage trucks all put wind in the sails of an industry already well into transition.

Personal vehicles: Most prominent—and likely to capture the most media attention—are the bill's provisions supporting the purchase of personal passenger vehicles. Important changes to the existing tax credit structure include:

- **Elimination of the volume cap for tax credits:** Under current law, only the first 200,000 EVs sold by any one manufacturer are eligible for tax credits. Tesla, GM, and Toyota have already hit the cap, and Nissan is expected to do so soon. The bill eliminates the cap, meaning cars sold by those leading manufacturers will once again be eligible for the subsidy.
- **Tax credits for used vehicles:** In addition to the \$7,500 credit for the purchase of new EVs, the bill creates a credit of up to \$4,000 for used EV purchases.
- **Income restrictions:** The credits are aimed at low- and middle-income purchasers. Only individuals with up to \$150,000 in modified adjusted gross income (MAGI) or joint filers with up to \$300,000 MAGI are eligible.

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- **Point-of-sale rebates:** The credit can now be offered as a rebate at the point of sale, rather than only when buyers file their tax returns. This means the burden on buyers' cash flow and credit is reduced, further incentivizing EV purchases.
- **Price restrictions:** The credit only applies to vehicles with a MSRP of \$55,000 or less (\$80,000 or less for vans, SUVs, and pickup trucks).
- **Domestic production and sourcing requirements:** Vehicles eligible for the full tax credit must be assembled in North America. In addition, 50% of their battery components must be assembled in North America, and at least 40% of the critical mineral content of those batteries must be sourced from the US or from countries with which the US has a free trade agreement. Those thresholds will increase over time, with the component requirement reaching 100% in 2029 and the mineral requirement topping out at 80% in 2027. A vehicle that fails one battery-related requirement or the other would be eligible for only half the subsidy. Supply chain experts are already voicing concern about the feasibility of these targets, given the heavy use of materials from countries like China and Russia in current batteries.

Commercial vehicles: The bill would also establish a commercial clean vehicle credit of \$7,500 for vehicles weighing less than 14,000 pounds and \$40,000 for vehicles in excess of 14,000 pounds. For a commercial vehicle to qualify, it must be manufactured primarily for use on roads, streets, and highways—this program is for commercial transport fleets, not construction machinery. Tax-exempt entities are not eligible to claim the credit.

Public heavy-use vehicles: The bill would allocate \$1 billion to offset costs to replace vehicles such as garbage trucks and school buses with zero-emission equivalents, and fund necessary supporting and charging infrastructure. Eligible recipients include state, municipal, tribal, and non-profit school associations.

Manufacturers: The bill directly supports the manufacture, not just the purchase, of electric vehicles. Relevant provisions include:

- **Domestic Manufacturing Conversion Grants:** \$2 billion in grants for the domestic production of hybrid, plug-in hybrid, plug-in electric, and hydrogen fuel cell vehicles. Manufacturers must fund at least 50% of the relevant project themselves, with grant funding available for the remainder.
- The **Advanced Energy Project Credit**, mentioned above, also supports retrofitting for EV and hybrid vehicle production.

Charging infrastructure: 2021's Infrastructure Investment and Jobs Act provided \$7.5 billion in funding for charging infrastructure. While the Inflation Reduction Act does feature various programs that contribute further on that front, it mainly addresses the supply and demand for EVs themselves.

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Implications for corporate climate action:

Make a plan for fleet electrification; the momentum is too strong to ignore. Fully electric vehicles made up 5.6% of total US sales in June 2022—double their share a year before. The market now features 33 EV models, also nearly double the 18 offered in 2021. Automobile manufacturers' R&D plans reveal they are committed to an electric future across the board. The strengthened financial incentives for EV production and purchase in the Inflation Reduction Act would accelerate a transition that is likely already inevitable. Companies need to plan for electrification when planning fleet purchase and leasing strategies, and should now quickly recalculate how new incentives may change timelines and breakeven points.

Expect lower Scope 1 and Scope 3 emissions, but potentially higher Scope 2: More EVs in corporate fleets will reduce Scope 1 emissions while increasing demand for purchased electricity (Scope 2). The details will depend on the growth of clean energy sources, as discussed above, but on balance, emissions will fall as more EVs hit the road. Scope 3 emissions should fall too; inbound and outbound distribution of goods will shift toward electric vehicles, suppliers will reduce their own Scope 1 emissions (and therefore the Scope 3 emissions of downstream buyers), employee commuting and business travel will occur more and more via EVs, and so forth.

Theme 3: Targeted efforts to decarbonize foundational industries will cascade through value chains.

The Inflation Reduction Act is filled with new funding to incentivize the decarbonization of specific industries. Many industries that are foundational to larger value chains would receive billions of dollars in support. These include agriculture, aviation, construction, and the production of materials such as steel, iron, concrete, and paper. The details of these proposals reveal the drafters' interest in furthering supply chain decarbonization and private sector innovation. Highlights include:

- **Agriculture:** The bill designates over \$20 billion for agricultural conservation projects. Of special note is that the Secretary of Agriculture "shall prioritize projects and activities that mitigate and or address climate change" and "may prioritize projects that leverage corporate supply chain sustainability commitments." As in any enabling legislation, and as elsewhere within this bill, the words "shall" and "may" are important for setting the boundaries of the Executive branch's obligation in the first case and authority in the second.
- **Industrial facilities:** The Advanced Industrial Facilities Deployment Program includes over \$5 billion to aid industrial facilities in adopting advanced technologies that reduce emissions. Eligible industries include steel, iron, aluminum, cement, concrete, paper, glass, and others. The Secretary of Energy is instructed ("shall") to prioritize projects on the basis of:

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- o The expected reduction in emissions
 - o The expected community benefit
 - o The existence of any partnership between the facility and purchasers of its output
- **Construction of federal buildings and highways:** The bill appropriates almost \$3 billion to the General Services Administration for the purchase and installation of low-carbon materials and sustainable technologies in federal buildings. It also appropriates \$2 billion to defray the additional cost of using low-carbon materials in federal highway projects, though not if those projects add new lanes for single-passenger vehicles.

These programs are demand-side subsidies for low-carbon materials and technologies, but they also entail formal government recognition and designation of those materials and technologies. As The Climate Board's research has shown, the slow pace of federal and state specification of low-carbon materials and methods has been a hindrance to decarbonization, even in the private sector.

- **Ports:** \$3 billion is to be appropriated for the use of zero-emissions technologies at ports and to the development of climate action plans related to port operations. Eligible recipients include state and municipal actors and port authorities, but also private entities that own, operate, or use port facilities and equipment.
- **Biofuels and aviation:** The bill extends funding for existing biofuel credits, and creates a new tax credit for sustainable aviation fuels (SAF). The value of the SAF credit scales with the degree of emissions reduction a given SAF yields over standard fuels. The credit ranges from \$1.25/gallon of SAF used to \$1.75/gallon, though the maximum value would only be achieved by a fuel that eliminated emissions entirely. Aviation leaders such as United Airlines have been pushing forward on SAF development and use, but the economics have remained questionable so far. These incentives could go a long way to tipping the scales toward scalable SAF adoption.

Implications for corporate climate action:

If your company is in heavy industry, your Scope 1 transition will be a lot cheaper. Factories and industrial plants involve huge fixed costs, so overhauling production processes and introducing new technologies is a weighty economic decision that cannot easily be undone. Consequently, large-scale decarbonization efforts are difficult to launch without clear, short-term financial incentives. While the full cost of the industrial net-zero transition far exceeds the funding appropriated in this bill, the intent is to change the calculus for the marginal case. Industrial leaders should be reevaluating climate action plans to see if decarbonization investments that previously did not clear ROI hurdle rates now might do so.

If your company uses virtually any physical product, your Scope 3 transition will be easier. This is a recurring theme throughout the proposed legislation. By focusing funding on the

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foundations of the economy—heavy industry, transportation, construction—the bill creates conditions for many downstream users of those foundational products to benefit from lower emissions in their supply chains. Given the near-apoplexy exhibited by many corporate leaders when asked about plans for Scope 3 reductions, this development should be most welcome.

Theme 4: The bill's focus on community and environmental justice aims to generate much broader political and social momentum for climate action.

Implicit in the Inflation Reduction Act's pantheon of programs is an acknowledgment that while some funding for decarbonization may need to be top-down, the climate action sufficient to hit the U.S.'s target of 40% emissions reduction by 2030 must be, at least in part, bottom-up. On top of that implicit thesis is a rather explicit one that environmental policy is social policy, and vice-versa. All told, the package includes more than \$60 billion in priorities to drive investments for disadvantaged communities—the largest environmental justice investment in American history. Throughout the bill, targeted programs emphasize both community-led decarbonization and the redress of economic and environmental harm, especially to disadvantaged communities. In some cases, programs have special terms for low-income communities (for example, solar and wind facilities placed in service in connection with low-income communities are eligible for more generous subsidies). In other cases, the bill would create entirely new programs and appropriate new funding for community-focused efforts.

Examples of the latter include:

- **The Neighborhood Access and Equity Grant Program** offers \$3 billion in grants to help state and local governments and metropolitan planning organizations fund projects improving walkability, safety, and affordable transportation. The grants are also available for projects that mitigate negative impacts on disadvantaged communities such as noise barriers, permeable surfaces to manage stormwater runoff, natural features to mitigate heat islands, and so forth.
- **Environmental and Climate Justice Block Grants** comprise \$3 billion in funding for a broad range of eligible activities, but only if to the benefit of disadvantaged communities.
- **The Greenhouse Gas Reduction Fund**, referred to elsewhere as the “clean energy technology accelerator” and still elsewhere as a national “green bank,” appropriates \$27 billion not directly to any particular projects, but instead to nonprofit organizations that invest in or finance low- and zero-emissions projects. The funding is specifically designated for assistance in low-income and disadvantaged communities. If the bill becomes law, local green banks and other organizations will enjoy additional funding beyond what they already receive from depositors, donors, and public agencies and therefore will be able to finance more projects.

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Implications for corporate climate action:

Businesses located in or serving disadvantaged communities may soon have many opportunities to take advantage of funding for climate-related activities—and gain important experience. Business leaders should monitor the establishment of the programs above and related rulemaking. Projects funded through these and other programs can be important springboards for implementing low-carbon materials, methods, and processes in settings with favorable economic conditions (on account of enhanced funding). Companies can use these springboards to build experience and expertise, not only in decarbonization, but in carbon accounting, carbon-conscious marketing, internal change management, supply chain engagement, and more. Capturing such opportunities now will position early movers for greater relevance and influence as the economy seeks out low-carbon leaders.

Do not forget the interplay of environmental and economic pressures. As more communities voice their concerns about environmental and economic injustice, and as the federal government increasingly acknowledges those concerns, it becomes ever harder for companies to claim isolation or immunity from them. Consumers, business, and investors now have more reason to believe that climate goals are within reach, and that they can benefit, not suffer, from the transition. They will expect others in the economy to act accordingly. Climate action is business action, and the net-zero transition is the theater of operations in which tomorrow's competitive battles will be lost and won.

The Climate Board will continue to monitor the legislative progress of the Inflation Reduction Act and any other climate-related legislation that may follow. Our member organizations enjoy direct access to our experts to discuss these developments and the specific implications for their businesses and climate action plans.



The Climate Board works with companies to generate financial returns from meaningful climate action. We provide actionable insights and recommendations drawn from the experiences of those who are leading the way in today's climate-conscious market.

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