The MARKET CHOICE Act of 2019

 **Nader Sobhani, David Bookbinder, and Joseph Majkut**Climate Policy Associate, Chief Counsel, Director of Climate Policy
Niskanen Center

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Key Takeaways

* The Market Choice Act (MCA) would abolish the federal excise tax on gasoline and diesel fuel and levy a tax on greenhouse gas (GHG) emissions from fossil fuels, certain large industrial facilities, and certain products used for industrial processes. The MCA would also levy a carbon-based border adjustment for GHG-intense imports and rebates for GHG-exports.
* The GHG tax would start at $35 per metric ton of CO2-equivalent emissions and increase at a real rate of 5 percent per year. Modeling estimates indicate that in the first 10 years, the MCA would reduce taxed GHG emissions by about 42 percent against 2005 baseline levels and raise about $1.4 trillion of revenue.
* Seventy percent of revenue from the GHG tax would go toward the Highway Trust Fund, with the remainder going toward spending on climate adaptation, energy research and development, and measures to mitigate the impacts of the tax for poor households and aid communities in transition.
* The MCA would amend the Clean Air Act to impose a rolling moratorium on regulations from the Environmental Protection Agency to reduce GHG emissions from stationary sources if emissions are below specific targets for 2021-2029.

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Introduction

The MCA was introduced by Representative Brian Fitzpatrick (R-PA) on September 26, 2019, with co-sponsors Salud Carbajal (D-CA), Scott Peters (D-CA), and Francis Rooney (R-FL). The legislation would eliminate the federal excise tax on gasoline and diesel fuel (the *gas tax*) and levy a tax on GHG emissions (a *carbon tax*). The legislation is a revised version of the MARKET CHOICE Act of 2018, which was introduced by then-Rep. Carlos Curbelo and Messrs. Fitzpatrick and Rooney.

As in the previous legislation, the MCA goals are to 1) fund infrastructure spending by taxing GHG pollution; 2) spur significant reductions in GHG emissions; and 3) offer a market alternative to the expansion of federal GHG regulations. The new bill makes several key changes to meet these goals. The 2019 version sets a higher rate for the carbon tax, increasing environmental ambition and the amount of expected revenue. It also makes more robust investments in carbon capture, storage, and utilization through research programs at the U.S. Department of Energy (DOE) and reforms to the investment tax credits for refurbishing coal plants.

Tax Swap Details

The MCA repeals the federal excise taxes on motor vehicle and aviation fuels, which are currently 18.4 cents per gallon on gasoline, 24.4 cents per gallon on diesel, and 4.4 cents per gallon on commercial jet fuel. These taxes provide revenue for the Highway Trust Fund, though stagnant revenues and increasing costs have led to persistent shortfalls1, and for the Airport and Airway Trust Fund.

The MCA levies a tax on GHG emissions from fossil fuel combustion, industrial processes, and product uses. While it is convenient to refer to this as a *carbon tax*, the MCA applies the tax to emissions of multiple GHGs (CO2, methane [CH4], nitrous oxide [N2O], and F-gases, based on their CO2-equivalent warming potential measured over 100 years).

**How much?**

The tax is levied at a rate of $35 per metric ton of CO2-equivalent (CO2e) emissions, starting in 2021. The rate increases 5 percent annually in real terms, using the Consumer Price Index to adjust for inflation. If the carbon tax is first collected in 2021, then over the first 10 years the rate will average $54.30 per ton in 2020 dollars. After 2030, the tax continues to increase annually at an inflation-adjusted 5 percent.

While the MCA’s primary purpose is funding infrastructure, the legislation also includes mechanisms to adjust the carbon price to meet a series of emissions targets, such that if emissions reductions fall behind expectations set in the legislation, the rate of the carbon tax will increase automatically. The targeted emissions reductions are defined as cumulative emissions from taxed sources from the start of the tax. If taxed emissions are higher than targeted levels, then the rate of the carbon tax will increase. Every two years, the EPA administrator and the secretary of the Treasury must report emissions levels under the tax for the preceding year and issue a finding as to whether or not they exceed the specified targets. If they do, then the tax will automatically increase an additional $4 per ton the following year. If emissions are less responsive to the carbon price than the sponsors expect, these adjustments could occur a maximum of five times over the first 11 years of the tax, potentially increasing the tax rate by up to $20 per ton. After 2031, there are no emission targets and thus no provisions for such increases.

**Who pays?**

The MCA carbon tax affects fossil fuel emissions and select industrial and product emissions, covering about 85 percent of U.S. GHG emissions. Table 1 shows estimates of the taxed emissions from these different sources.

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| Table 1: U.S. Greenhouse Gas Emissions Coverage |
| Source | 2016 emissions (MMT CO2-eq) | Percentage of total 2016 U.S. emissions |
| Total | 5719 | 85 |
| Fossil Fuels | 5078\* | 75 |
| Industrial Processes | 220 | 3.2 |
| Product Uses | 421 | 6.2 |
| *\*Includes 112 MMT of non-combustion emissions**Data from U.S. EPA Greenhouse Gas Inventory 2018.* |

**Fossil Fuels:** The largest part of the tax base is fossil fuel emissions. The MCA taxes coal, petroleum fuels, and natural gas produced in, or imported into, the United States based on the GHG emissions released during the fuel’s combustion. The proposal requires the secretary of the Treasury and EPA administrator to issue rules defining how combustion emissions will be calculated for different fossil fuel products.

This tax is designed to minimize the number of taxed entities. Coal is taxed at the mine mouth; petroleum products are taxed at the refinery exit; and natural gas is taxed at the exit from the gas processing plant. Imported fossil fuels are taxed at the point where they first enter the United States. For cases not captured by these categories, the point of taxation is selected to reasonably limit the number of entities paying the tax. The owner of the fossil fuel at the point of taxation is responsible for paying the tax.

**Process Emissions:** The MCA imposes the same rate of tax on facilities that emit GHGs while manufacturing a specific list of products including metals, petrochemicals, and cement. Facilities in each of those source categories that emit more than 25,000 tons CO2e per year in process emissions are taxed on those emissions. EPA may add to the list of taxed facilities when total emissions from a previously exempt source category are over 250,000 tons per year for two out of the previous five years, average facility emissions are over 25,000 tons for those years, and EPA anticipates that source category emissions will be over 250,000 tons in any of the following five years. EPA may remove source categories when total source category emissions fall below 250,000 tons per year for three consecutive years and are expected to remain below that level and facility emissions have averaged less than 25,000 tons per year during that period.

**Product Use:** The MCA also imposes the same tax rate on emissions from specific products that release GHGs when used, including fuel ethanol, biodiesel, and woody biomass. The list of covered products includes hydrofluorocarbons and other ozone-depleting substances as long as the United States has not ratified the 2016 Kigali Amendment, which would regulate these emissions in accordance with the 30 year-old Montreal Protocol on Substances that Deplete the Ozone Layer. Product manufacturers (or importers) are responsible for paying the tax. For biofuels, the tax rate is based on the lifecycle emissions of the product. As with industrial-process emissions, EPA can add to, and must remove from, the list of products when certain emissions criteria are met.

**Rebates and border adjustments**

The MCA creates a rebate for fuel purchasers who use fossil fuels as raw materials for durable products or who capture CO­2 both before and after combustion and sequester it in geological storage. The storage rebate will only be authorized after the regulations required for secure geological storage under 26 U.S. Code § 45Q have been published.

The proposal also offers a declining credit against any carbon price paid at the state level, as in California or the Regional Greenhouse Gas Initiative (RGGI) states. In the first year of the carbon tax, anyone who pays a state-based carbon price can apply for a credit against the federal levy equal to the full state-based price. In the second year, they may apply for a credit equal to 80 percent of the state-based price. The credit falls another 20 percent each year, reaching zero in the sixth year and beyond. The declining credit gives those states that price CO2 emissions time to decide whether to modify the scope or rates for their pricing schemes. Not allowing any credit would not give states that opportunity; on the other hand, a permanent 100 percent credit would encourage every state to impose their own carbon tax, which would undermine the revenue purposes of the MCA.

Like many previous carbon tax proposals, the MCA also authorizes the Treasury Department to create border adjustments for greenhouse-gas-intensive goods. Border adjustments require importers of carbon-intensive goods to pay a fee based on the average cost increase paid by manufacturers of comparable products in the United States because of the carbon tax. The purpose is to maintain the competitiveness of domestic producers of greenhouse-gas-intensive and trade-exposed goods and prevent leakage of industrial emissions. Importers of highly-traded goods that have a GHG intensity (calculated as the emissions intensity of production multiplied by the carbon price) higher than 5 percent of the total value of their good are subject to these border adjustments. Likewise, exporters of those same goods will receive rebates to maintain their competitiveness in international markets.

The president is also given the authority to exempt sectors or products if subjecting them to the border adjustment were not in the interest of the United States. The bill also exempts from the tax products that come from the least-developed countries, or countries the president determines have minimal GHG emissions.

Greenhouse Gas Emissions and Revenue Disbursement

Revenues from the MCA will depend on future GHG emissions and changes in fossil fuel usage, which is expected to decline under the new carbon tax as emitters and consumers adopt lower-emitting alternatives. Thus, estimates of MCA revenue must take the emitters’ expected response into account.

**Expected emissions**

The MCA carbon tax is expected to significantly reduce GHG emissions, but not enough to eliminate them as a source of revenue in the 10-year period after the tax is first imposed. As they are the largest emissions category covered by the tax, emissions from fossil fuel combustion are the most important to projections of revenue and environmental outcomes.

Using the Goulder-Hafstead E3 model, a computable general equilibrium model of the U.S. economy, analysts at Resources for the Future have projected how the tax swap proposed in the MCA would affect GHG emissions.[[1]](#endnote-1) For a carbon tax starting at $35 per ton in 2021 and increasing 5 percent annually in real terms, the model projects that CO2 emissions from fossil fuel combustion will fall 42 percent from 2005 levels by 2030 (starting from 15 percent below 2005 levels in 2020).

To fully account for the tax’s revenue and GHG emissions impacts, emissions from other source categories should be included. However, the emissions response to the tax in those other sectors is not as readily modeled. The simplest approach is to assume that those emissions remain constant at their 2016 levels near 766 million metric tons (MMT) per year. This leads to a conservative estimate of the environmental benefits of the bill and a generous estimate of the revenue.

Expected emissions from the taxed sources can be generated by adding the fossil fuel combustion emissions from the E3 model with the static emissions assumed from other sources. We report that sum for the first decade of taxation in Table 2.

**Expected revenue**

The revenue values in Table 2 reflect the new revenue expected after a 25 percent haircut, an approximation of the Congressional Budget Office’s practice for estimating the revenue impact of new excise taxes. After this haircut, revenues generated by the MCA would be around $1.4 trillion over the first 10 years of the tax.

The MCA creates the Rebuilding Infrastructure and Solutions for the Environment (RISE) Trust Fund to receive and disburse revenue from the new carbon tax. The MCA appropriates specific percentages of the RISE Trust Fund for infrastructure funding, energy assistance to low-income households, energy transition assistance, climate adaptation, and advanced energy R&D.

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| Table 2: Expected GHG Emissions and Revenue (2020 dollars) |
| Year | Carbon Price ($) | Expected Emissions (MMT CO2-eq ) | RISE Contributions1 (billion $) |
| 2015 | - | **6343** | - |
| 2016 | - | **5590** | - |
| 2020 | - | 5733 | - |
| 2021 | 35.00 | 4901 | 129 |
| 2022 | 36.75 | 4793 | 132 |
| 2023 | 38.59 | 4685 | 136 |
| 2024 | 40.52 | 4586 | 139 |
| 2025 | 42.54 | 4495 | 143 |
| 2026 | 44.67 | 4409 | 148 |
| 2027 | 46.90 | 4324 | 152 |
| 2028 | 49.25 | 4254 | 157 |
| 2029 | 51.71 | 4187 | 162 |
| 2030 | 54.30 | 4117 | 168 |
| 10-YR Total |  | 44752 | 1,466 |
| 1 Expected Revenues to the RISE Trust Fund after 25 percent haircut.  |

**Infrastructure Funding:** The largest percentages are directed to infrastructure funding, including 70 percent to the Highway Trust Fund, which will no longer receive funding from the gas tax under the MCA. A small percentage (2.5 percent) is also appropriated for the Airport and Airway Trust Fund to replace funding lost due to the elimination of the jet fuel excise tax.

**Energy Assistance:** The next largest appropriation (10 percent) goes to a state-based grant program that individual states will use to offset the burden of the tax on households earning less than 150 percent of the federal poverty line or qualifying for other assistance programs. The MCA requires that those funds be apportioned between the states based on the relative carbon footprint for the energy consumed in each state, meaning that the states with higher populations or carbon intensities will receive a larger proportion of the funds. The MCA also directs funds to increase the budget of programs for displaced workers (3 percent) and dedicates 1.5 percent of revenues to the Abandoned Mine Reclamation Fund.

**Adaptation:** The MCA appropriates 4 percent of the RISE Trust Fund for mitigation of frequent and chronic flooding and for adaptation infrastructure projects authorized by amendments to the Coastal Zone Management Act. The MCA also appropriates funds to the Reforestation Trust Fund.

**Energy R&D:** The MCA appropriates 1.5 percent of its revenue to the Advanced Research Projects Agency-Energy, as well as small percentages (less than 1 percent each) to specific Energy Department research programs for CO2 capture at the facility level, direct capture of CO2 from ambient air, underground storage of CO2, and grid-scale battery storage.

Improvements for Carbon Capture

The MCA increases support for the commercial deployment of carbon capture, and sequestration (CCS) and represents the most significant investment in CCS of any legislative effort to date.

**Investment certainty**

The MCA gives businesses two additional years to begin construction on carbon capture projects and still be eligible for the geological-storage tax credit created under 26 U.S. Code § 45Q . Given the long lead times needed to plan and permit carbon capture projects, and given that the IRS has yet to finalize guidance that would allow projects to proceed and use the tax credit, an extension is needed to fully maximize the value of the program, which Congress created in 2018. The MCA allows entities to claim credits against the carbon tax when they sequester carbon dioxide and to claim the 45Q credit for carbon in storage. This functionality allows a double credit for CCUS for the 12 years in which entities are allowed to get 45Q tax credits when applying the technology to a fossil fuel plant.

**R&D funding**

Compared to the MCA introduced in the 115th Congress, the MCA of 2019 both increases the amount of revenue (by increasing the carbon price to start at $35 per metric ton of CO2e and increase at 5 percent per year) and changes the allocation scheme to increase support for CCUS. The table below shows preliminary estimates of the size of these programs for the MCA from the 115th and 116th Congress, the Fossil Energy R&D Act (Veasey, H.R. 3607), the EFFECT Act (Manchin, S.1201), and the FY2018 continuing resolution spending levels.

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| --- | --- | --- | --- | --- | --- |
| All Figures ($ millions per year) | Market Choice Act 115th | Market Choice Act 116th | Fossil Energy R&D Act (FY24) | EFFECT Act (FY24) | FY2018CR |
| Carbon Capture R&D | 742 | 1,083 | 1,386 | 900 | 101 |
| Carbon Storage  | 530 | 774 | 146 | 128 | 94 |
| Direct Air Removal/Carbon Removal  | 0 | 774 | 73 | 37 | 0 |
| Carbon Utilization | 0 | 464 | 30 | 30 | 0 |
| Carbon Capture Pipelines  | 36.75 | 309 | 0 | 0 | 0 |
| Total  | **1,802** | **3,404** | **1,617** | **1,095** | **195** |

**Project finance and feasibility**

The MCA incorporates text from legislation introduced in the U.S. Senate and House — the Carbon Capture Modernization Act (S. 407 and H.R. 1796) — that will reform the Section 48A tax credit. The legislation would correct program design flaws that have made it difficult to incentivize companies to retrofit currently operating U.S. coal-fired power plants with carbon capture technology.

**Pipelines: Federal support for new construction**

The MCA allocates revenues from the carbon tax for federal grants to cover the incremental cost of supersizing pipelines to provide extra capacity and realize economies of scale. Pipeline capacity is essential for moving captured carbon dioxide from capture sites to sites for sequestration or utilization in other products. Therefore, building out a network of pipeline infrastructure will be necessary to achieve commercial deployment of CCUS technology. However, pipelines are typically financed by requiring shippers to sign contracts for future capacity in advance of construction, which does not incentivize the deployment of carbon capture. The MCA will allow the federal government to supplement private capital in financing pipeline construction to realize economies of scale and accommodate continued growth in the deployment of carbon capture projects.

Regulatory Moratorium

Starting from the time it is first collected, the MCA imposes a 12-year conditional moratorium on EPA finalizing or enforcing regulations to limit GHG emissions from taxed sources.

**Conditions**

The regulatory moratorium imposed by the MCA is conditional on GHG emissions reductions from the taxed sources meeting the bill’s targets. Those targets are consistent with the expected emissions in Table 2, but apply to cumulative emissions after 2021 from the taxed sources (see Figure 2). In March 2025, cumulative emissions will be reported for the period 2020-2024; if those emissions are higher than the 2024 cumulative emissions target, then the regulatory moratorium will end in October 2025. Likewise, cumulative emissions through 2028, determined in March 2029, will determine if the moratorium will extend beyond October 2029. In any event, the regulatory moratorium expires on January 1, 2033.

**Exceptions**

EPA retains its full authority over GHG emissions from natural gas and petroleum systems and from publicly-owned sewage treatment plants. EPA also retains its full authority to limit GHG emissions from motor vehicles, nonroad engines, and aircraft, although the latter may not be stricter than the limits imposed by the International Civil Aviation Organization.

Beyond reducing GHG emissions, EPA retains (1) all other regulatory authority over GHG emissions (e.g., monitoring and reporting requirements, information gathering); (2) authority to regulate GHG emissions for non-GHG effects; and (3) authority to regulate any GHG that is not among the six specific ones targeted by the bill (carbon dioxide, methane, nitrous oxide, HFCs, PFCs, and sulfur hexafluoride).

 Conclusion

As an infrastructure-funding mechanism, the MCA provides a novel source of revenue with significant expected environmental benefits. Under the MCA, new revenue is dedicated to the perpetually underfunded Highway Trust Fund and a variety of other programs to reduce the impact of the new carbon tax on poor households, support climate adaptation, transition energy workers, and support low-carbon energy research and development. The political prospects of such a revenue stream are unknown and the economic implications are less studied than those of more common proposals to use carbon revenue to reduce rates of capital or labor taxes.

While the sponsors expect the proposal will spur significant reductions in GHG emissions and propose a price adjustment mechanism to secure those reductions, the bill does not specify emissions targets beyond 2031. This is a fundamental difference from climate bills that use carbon pricing to pursue midcentury climate goals. How well the price adjustment mechanisms will work and what information about long-term carbon pricing strategies would be captured by having a decade of experience to measure the economic and environmental outcomes of a meaningful carbon price are questions for further study.

About the Authors

**Nader Sobhani** is a climate policy associate at the Niskanen Center. His areas of research include environmental tax reform and clean energy policy. Prior to joining the Niskanen Center in 2018, he was an analyst at the Foreign Policy Group, where he focused on identifying the economic impacts and policy implications of emerging trends, with a special focus on energy and global health. He graduated from the London School of Economics and Political Science with a Master of Science in Environmental Economics & Climate Change and holds a B.A. in International Relations from Virginia Tech.

**Joseph Majkut** is director of climate policy at the Niskanen Center. He is an expert in climate science, climate policy, and risk and uncertainty analysis for decision making. He is frequently cited by prominent media outlets; his writing has been featured in scientific journals, public media, and environmental trade press; and he has been invited to testify before Congress on climate and scientific research. Before joining the Niskanen Center, he worked on climate change policy in Congress as a congressional science fellow, supported by the American Association for the Advancement of Science. He holds a PhD from Princeton University in Atmospheric and Oceanic Sciences, a master’s degree in Applied Mathematics from the Delft University of Technology, and a bachelor’s degree in Mathematics from Harvey Mudd College.

**David Bookbinder** is chief council at the Niskanen Center and has litigated dozens of cases under all of the major environmental statutes including, as Sierra Club’s Chief Climate Counsel, initiating and managing *Massachusetts v. EPA*. In addition, he represented the environmental community (including as trial council) in the thicket of litigation over California’s greenhouse gas vehicle standards. Mr. Bookbinder was trained at Princeton University (*summa cum laude)* and the University of Chicago Law School.

1. 1. *Funding and Financing Highways and Public Transport* (Congressional Research Service: June 2019, <https://fas.org/sgp/crs/misc/R45350.pdf>
	2. *Carbon Pricing Calculator* (Resources for the Future: September 2019), <https://www.rff.org/cpc/>. [↑](#endnote-ref-1)