

AN ANALYSIS OF THE ENERGY INNOVATION AND
CARBON DIVIDEND ACT OF 2019

by
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Abstract

The United States and the rest of the world need to make drastic policy changes to address the increasing amount of carbon emissions that is escalating the climate change crisis. In recent years, climate change has cemented itself as a platform issue among Democratic candidates and lawmakers. The Green New Deal, proposed by Representative Alexandria Ocasio-Cortez [D-NY-14] and Senator Edward Markey [D-MA], has galvanized discussions on ways to counteract climate change. While that may be the most popular climate change policy in the media, a bipartisan solution may potentially be a better fit to mitigate the climate crisis. On January 24, 2019, Representative Ted E. Deutch [D-FL-22] introduced the H.R.763 – Energy Innovation and Carbon Dividend Act of 2019.

The Energy Innovation and Carbon Dividend Act (EICDA) of 2019 is a carbon tax that will impose a fee across all levels of the United States on fossil fuels such as natural gas, coal, oil, and on other imports and producers. This independent analysis of the EICDA will evaluate its main goal to reduce carbon emissions substantially by 2030 and practically eliminate emissions by 2050. As discussed in this capstone, the EICDA may lead to an ample decrease in emissions, generation of revenue, creation of jobs, and a transformed green economy. The EICDA may face political feasibility issues that will be further discussed. Based on this analysis of the Energy Innovation and Carbon Dividend Act of 2019 would be aggressive to mitigating climate change, however, the recommendation is to not pursue this bill currently.

Advised by: Professor Paul Weinstein

Table of Contents

I. Action Forcing Event.....	1
II. Statement of the Problem	1
III. History and Background.....	4
IV. Policy Proposal.....	12
V. Policy Analysis.....	16
VI. Political Analysis.....	29
VII. Recommendation.....	41
Curriculum Vita	43

Table of Figures

Figure 1 - Global Carbon Emissions from Fossil Fuels, 1900 – 2014.....	5
Figure 2 – Greenhouse gas emissions in the EU ETS and emissions not in the ETS by sector in 1990 to 2017 (million tonnes of CO eq.)	10
frFigure 3 – <i>US fossil fuel production, 2030</i>	14
Figure 4 – US economy-wide net GHG Emissions, 2015 – 2030	18
Figure 5 – Large job creation possible within the renewable energy sector	20
Figure 6 – Growth of the green economy vs fossil fuel sector	21
Figure 7 – The United States is on pace to lead the world in debt increase as a percentage of GDP.	23
Figure 8 – CBO Estimated Revenues from a \$20/mt CO₂ Carbon Tax Compared to Two CBO Budget Deficit Projections	24
Figure 9 – US average gasoline prices, 2020 and 2030	25
Figure 10 – Policy Support by Yale University	31
Figure 11 – CBS News Poll: Very Important Issues to You Personally	33
Figure 12 – Carbon Pricing Proposals in the 116th Congress	34
Figure 13 – Majorities of American say the federal government is not doing enough to protect the climate, environment	36
Figure 14 – Republicans, young, and old tend to be skeptical about effects of climate policy on the economy	37

TO: Representative Nancy Pelosi, Speaker of the House of Representatives
[D-CA]

FROM: Michael Shaheen

DATE: April 27, 2020

SUBJECT: The Energy Innovation and Carbon Dividend Act of 2019

I. Action Forcing Event

Representative Alexandria Ocasio-Cortez, [D-NY-14], and Senator Ed Markey, [D-Mass] introduced the framework for the Green New Deal on February 7, 2019.¹ This resolution comes in the wake of the Intergovernmental Panel on Climate Change (IPCC) Special Report that global warming is at 1.5°Celsius above pre-industrial levels.²

II. Statement of the Problem

Climate change is an increasingly global issue. According to the NRDC, the consequences of climate change will have a global effect: more frequent and severe weather, higher death rates, dirtier air, higher wildlife extinction rates, more acidic oceans, and higher sea levels.³ In particular, fossil fuels “[have] exacted an enormous toll on humanity and the environment – from air and water pollution to global

¹ Recognizing the duty of the Federal Government to create a Green New Deal, H. RES. 109, 116th Cong. (2019), <https://www.congress.gov/116/bills/hres/109/BILLS-116hres109ih.pdf>

² IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. World Meteorological Organization, Geneva, Switzerland, 32 pp.
https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_stand_alone_HR.pdf

³ Melissa Denchak, “Are the Effects of Global Warming Really that Bad?,” NRDC, March 14, 2016, <https://www.nrdc.org/stories/are-effects-global-warming-really-bad>

warming.”⁴ The United States is at the forefront of the climate change crisis because it is a global leader internationally. In the United States, there has not been enough done to combat the increasing carbon emissions that are currently being produced. Various policies would be effective at mitigating carbon emissions in the United States. The United States should follow suit with various other countries attempting to diminish carbon emissions caused by fossil fuels. If nothing is done to combat climate change the effects will continue, all of which “are accelerating with climate-related disasters piling up, season after season.”⁵ Specifically in the United States, if climate change runs rampant, there may be extremes of coastal flooding, larger precipitation events, heat waves, droughts, hurricanes, and atmospheric rivers leading to severe flooding.⁶ A policy to address the potential climate change-related consequences that could affect millions of Americans needs federal consideration.

Overall, climate change is an issue that is affecting the whole world. Enacting a policy in the United States that mitigates carbon dioxide (CO₂) emissions would, in turn, benefit the environment domestically and abroad. The European Commission states, CO₂ “is the greenhouse gas most commonly produced by human activities and it is responsible for 64% of man-made global warming.”⁷ The consequences of climate change, known and unknown, poses a threat to the future, and that is why it is so critical that there are

⁴ Melissa Denchak, “Fossil Fuels: The Dirty Facts,” *NRDC*, June 29, 2018, <https://www.nrdc.org/stories/fossil-fuels-dirty-facts>

⁵ Henry Fountain, “Climate Change is Accelerating, Bringing World ‘Dangerously Close’ to Irreversible Change,” *The New York Times*, December 4, 2019, <https://www.nytimes.com/2019/12/04/climate/climate-change-acceleration.html>

⁶ Donald Wuebbles, David W. Fahey, and Kathy Hibbard, “How Will Climate Change Affect the United States in Decades to Come?” *EOS*, November 3, 2017, <https://eos.org/features/how-will-climate-change-affect-the-united-states-in-decades-to-come>

⁷ “Causes of Climate Change,” *European Commission*, https://ec.europa.eu/clima/change/causes_en

political mechanisms put in place now. A push for global action in order to shift policies on climate change. Policies on climate change and fossil fuel emissions could help deal with a multitude of problems, but explicitly it can help face this “economic, political and philosophical problem.”⁸ Climate change is a global crisis that needs consideration. The United States has been a key contributor to the climate crisis throughout its history.

The United States may no longer be the greatest producer of emissions, but the United States has produced the most carbon dioxide emissions in the history of the world. In 2019, the carbon dioxide emissions hit a record with “China responsible for 26 percent and the United States responsible for 14 percent.”⁹ According to Carbon Brief, the United States since 1750 has produced “397 gigatonnes of cumulative CO₂ emissions,”¹⁰ which is approximately 183 more than China and 217 than the former Soviet Union. Due to the technological and industrial advancements in the United States, it has significantly contributed to climate change. The United States should consider policies that limit emissions and would become a global influential leader for battling climate change. This is particularly timely because President Trump’s policies toward regulations have led the “U.S. energy-related greenhouse gas emissions [rising] in 2018 by 3.4 percent...reversing a three-year decline.”¹¹ The direction of the United States climate policies need addressing. A carbon tax would be important to help mitigate the increasing effects that

⁸ <https://www.nytimes.com/2019/09/30/opinion/climate-change.html>

⁹ Brad Plumer, “Carbon Dioxide Emissions Hit a Record in 2019, Even as Coal Fades,” *The New York Times*, December 3, 2019, <https://www.nytimes.com/2019/12/03/climate/carbon-dioxide-emissions.html>

¹⁰ Carbon Brief (@CarbonBrief), “Animation: The countries with the largest cumulative CO₂ emissions since 1750,” Twitter, April 23, 2019, https://twitter.com/CarbonBrief/status/1120715988532629506?ref_src=twsrc%5Etfw%7Ctwcamp%5Etwetembed%7Ctwterm%5E1120715988532629506&ref_url=https%3A%2F%2Fwww.vox.com%2Fenergy-and-environment%2F2019%2F4%2F24%2F18512804%2Fclimate-change-united-states-china-emissions

¹¹ Umair Irfan, “After years of decline, US Carbon emissions are rising again,” *Vox*, January 9, 2019, <https://www.vox.com/2019/1/8/18174082/us-carbon-emissions-2018>

CO₂ emissions have on climate change.

The effects of climate change will leave lasting effects on the world and future generations. The pattern of severe weather, increase in global temperature, and other environmental consequences may get to a point of irreversibility. The New England Journal of Medicine writes, “Approximately 250,000 deaths annually between 2030 and 2050 could be due to climate change.”¹² This grim analysis could be the future across the world. There will be increases in morbidity, mortality, poverty, and inequities.¹³ The United States has an important role to play as a global superpower about mitigating emissions and combatting climate change. The United States should be at the forefront of creating policies to address climate change and all the catastrophic consequences that may come with it. Climate change will affect all populations and all countries. This multivariable of climate change and increasing carbon emissions is a problem with economic, political, and philosophical concerns that needs a solution.

III. History and Background

One of the most important organizations that focuses on climate change is the Intergovernmental Panel on Climate Change, established in 1988 by the United Nations General Assembly.¹⁴ The first prominent international report on climate change created by IPCC was in June of 1992. Their report, *Climate Change: The IPCC 1990 and 1992 Assessments*, states certainty on two key principles: “(1) there is a natural greenhouse gas

¹² Andy Haines, M.D. and Kristie Ebi, M.P.H., Ph. D., “The Imperative for Climate Action to Protect Health,” *The New England Journal of Medicine*, January 17, 2019, <https://www.nejm.org/doi/full/10.1056/NEJMra1807873>

¹³ Ibid.

¹⁴ “History of the IPCC,” *Intergovernmental Panel on Climate Change*, <https://www.ipcc.ch/about/history/>

effect; (2) emissions resulting from human activities are substantially increasing the atmospheric concentrations of greenhouse gases.”¹⁵ Human activity related emissions have continued to increase since the first report by the IPCC.

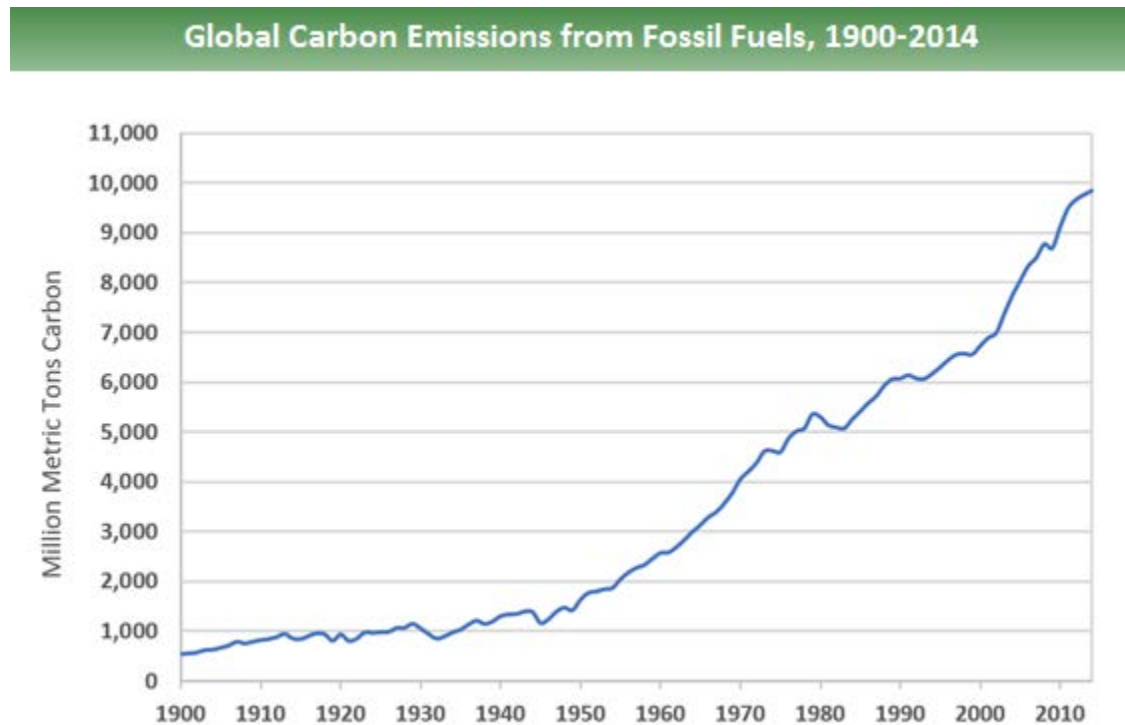


Figure 1 - Global Carbon Emissions from Fossil Fuels, 1900 – 2014¹⁶

As the graph indicates, carbon dioxide emissions have continued to increase since this 1992 first report by the IPCC. According to the United States Environmental Protection Agency (EPA), “net emissions of greenhouse gases from human activities increased by 35% from 1990 to 2010...almost all [atmospheric concentrations of greenhouse gases] of

¹⁵ Climate Change: The 1990 and 1992 IPCC Assessments, “IPCC First Assessment Report Overview and Policymaker Summaries and 1992 IPCC Supplement,” *Intergovernmental Panel on Climate Change*, Pg. 63, June 1992,

https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_90_92_assessments_far_full_report.pdf

¹⁶ Boden, T.A., Marland, G., and Andres, R.J. (2017). [Global, Regional, and National Fossil-Fuel CO2Emissions](#). Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, Oak Ridge, Tenn., U.S.A. doi 10.3334/CDIAC/00001_V2017.

this increase is attributable to human activities.”¹⁷ The trend of emissions relating to climate change continues to rise. Since this first report, the IPCC has released several other reports and assessments on the effects of climate change. The most important recent report on climate change was the special report *Global Warming of 1.5°C*. This report continues to emphasize the current and future effects that climate change has on the world. This special report concludes that human activities have caused approximately 1.0°C of global warming and will continue to increase in the following decades.¹⁸ The report highlights potential worsening effects not only with severe weather, but also with increased risk to economic, security and health issues.¹⁹ The projected effects and risks will have a significant impact on millions of individuals throughout the world. Not only humans, but also every living species on Earth.²⁰ Specifically, without limiting global emissions, these problems will affect hundreds of millions of lives.²¹ The world has attempted to establish several protocols and agreements to mitigate climate change emissions.²²

Industrialized nations have tried to limit the effects of climate change through several agreements. The first major agreement was the Kyoto Protocol. The adoption of

¹⁷ “Global Greenhouse Gas Emissions Data,” *United States Environmental Protection Agency*, <https://www.epa.gov/climate-indicators/greenhouse-gases>

¹⁸ IPCC, 2018: Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press, https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf

¹⁹ Ibid.

²⁰ “How climate change plunders the planet,” *Environmental Defense Fund*, 2020, <https://www.edf.org/climate/how-climate-change-plunders-planet>

²¹ “Climate Solutions,” *The Union of Concerned Scientists*, 2020, <https://www.ucsusa.org/climate/solutions>

²² “Climate Change,” *United Nations*, 2020, <https://www.un.org/en/sections/issues-depth/climate-change/>

this protocol was on December 11, 1997, and “entered into force on February 16, 2005.”²³ Currently, 192 countries have ratified the protocol, and one of them not being the United States because it dropped out in 2001.²⁴ The goal of the Kyoto Protocol according to the United Nations Framework Convention on Climate Change was “to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets.”²⁵ The Kyoto Protocol targeted six greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and Sulphur hexafluoride.²⁶ Moreover, signing parties had to start domestic policies and measures to reduce greenhouse gases by providing financial assistance to developing countries to research and develop climate-friendly technologies.²⁷ This protocol seeks fundamental change and efforts into mitigating within each signing party. The Kyoto Protocol was the first major worldwide agreement for a collective effort to limit emissions.

The second important agreement on Climate Change was the Paris Agreement. This agreement signed on December 12, 2015, in Paris, France and entered into force on November 4, 2016.²⁸ The Paris Agreement “brought all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.”²⁹ This is a monumental global

²³ “What is the Kyoto Protocol?,” *United Nations Framework Convention on Climate Change*, https://unfccc.int/kyoto_protocol

²⁴ “Kyoto Protocol Fast Facts,” *CNN Library*, March 21, 2018, <https://www.cnn.com/2013/07/26/world/kyoto-protocol-fast-facts/index.html>

²⁵ Ibid.

²⁶ “Kyoto Protocol – Targets for the first commitment period,” *United Nations Framework Convention on Climate Change*, 2020, <https://unfccc.int/process-and-meetings/the-kyoto-protocol/what-is-the-kyoto-protocol/kyoto-protocol-targets-for-the-first-commitment-period>

²⁷ “Kyoto Protocol Reference Manual,” *United Nations Framework Convention on Climate Change*, November 2008, https://unfccc.int/resource/docs/publications/08_unfccc_kp_ref_manual.pdf

²⁸ “Paris Agreement – Status of Ratification,” *United Nations Convention on Climate Change*, <https://unfccc.int/process/the-paris-agreement/status-of-ratification>

²⁹ “What is the Paris Agreement?,” *United Nations Convention on Climate Change*, <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

agreement that would help battle and mitigate the effects of climate change. Those key aspects are reducing emissions, transparency, global stocktake, adaptation, loss and damage.³⁰ Each ratifying country has its own target goals to hit by the end of the century. Presently, 189 parties have ratified the Paris Agreement.³¹ The United States initially ratified the Paris Agreement because “President Obama was able to enter the United States into the agreement under international law through executive action.”³² However, the United States on November 9, 2019, began the process to withdraw from the Paris Agreement³³ and that will take effect on November 4, 2020, per the Agreement.³⁴ The current administration of the United States “has been aggressive to roll back environmental regulations.”³⁵ Globally and domestically, there has been a history of several different policy tools to diminish the effects of climate change.

One of the minds behind a carbon tax was English economist, Arthur Cecil Pigou. In 1920, Pigou invented the framework and ideology for what is the basis of the carbon tax. The definition of a Pigouvian tax is to “impose a per-unit tax on a good, thereby generating negative externalities equal to the marginal externality at the socially efficient

³⁰ “Paris Agreement,” *European Commission*,

https://ec.europa.eu/clima/policies/international/negotiations/paris_en

³¹ “Paris Agreement – Status of Ratification,” *United Nations Convention on Climate Change*, <https://unfccc.int/process/the-paris-agreement/status-of-ratification>

³² Melissa Denchak, “Paris Climate Agreement: Everything You Need to Know,” *NRDC*, December 12, 2018, <https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know>

³³ Mike Pompeo, “On the U.S. Withdrawal from the Paris Agreement,” *U.S. Department of State*, November 4, 2019, <https://www.state.gov/on-the-u-s-withdrawal-from-the-paris-agreement/>

³⁴ “C.N.63.2016.TREATIES-XXVII.7.d Paris Agreement,” opened for signature November 4, 2016, *United Nations Treaty Collection*, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=en#4

³⁵ Lisa Friedman, “Trump Rule Would Exclude Climate Change in Infrastructure Planning,” *The New York Times*, January 3, 2020, <https://www.nytimes.com/2020/01/03/climate/trump-nepa-climate-change.html>

quantity.”³⁶ The creation of this idea is due to the increase in pollution in England during the 1920s.

The first usage of carbon taxing was in the late 1980s and early 1990s. The first country to implement a carbon tax was Finland. In 1990, Finland implemented a carbon tax on the content of fossil fuels in efforts to mitigate climate change.³⁷ Finland’s carbon tax started with various exemptions for specific industries. This carbon tax has reformed three times since its inception to include a greater carbon tax and energy tax. In 2010, Finland generated “approximately \$500 million (some 15% of total energy taxes).”³⁸ Interestingly, the increased carbon pricing and reforms that Finland put in place have

³⁶ “Pigouvian Taxes,” *Introduction to Economic Analysis*, Saylor Academy, 2002,

https://saylordotorg.github.io/text_introduction-to-economic-analysis/s08-02-pigouvian-taxes.html

³⁷ Michael Nachmany, Sam Fankhauser, Jana Davidova, and Et. Al., “The 2015 Global Climate Legislation Study, A Review of Climate Change Legislation in 99 Countries,” *Climate Change Legislation in Finland*, 2015, <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/05/FINLAND.pdf>

³⁸ UNCSD Secretariat, “Questionnaire for the Member States on Experiences, Success Factors, Risks and Challengers with Regard to Objective and Themes of UN Conference on Sustainable Development (UNCSD), *United National Sustainable Development Goals*, 2010, <https://sustainabledevelopment.un.org/index.php?page=view&type=99&nr=183&menu=1449>

brought emissions below their levels in 1990.

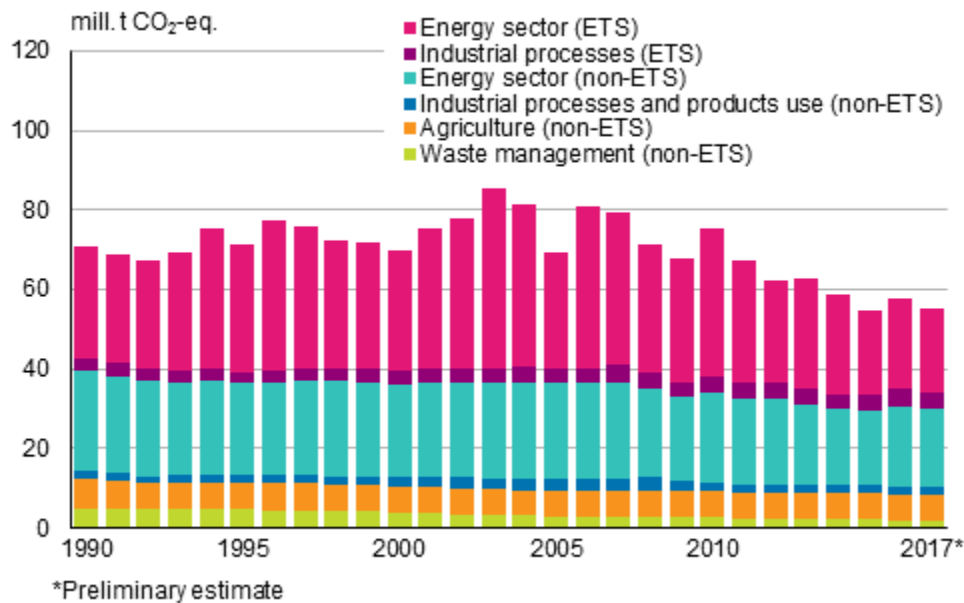


Figure 2 – Greenhouse gas emissions in the EU ETS and emissions not in the ETS by sector in 1990 to 2017 (million tonnes of CO eq.) *Source*³⁹

Finland’s progress towards mitigating emissions is an example of what measures may be needed to reach the European Union Standards. The United States, on the other hand, has had several unsuccessful attempts at a carbon tax.

The United States has had several attempts at a carbon tax policy since 1990. In 1993, President Bill Clinton proposed a broad-based energy tax (B.T.U.) that would apply to the energy content of nearly all fuels.⁴⁰ According to the Clinton Administration, it “planned to collect \$1.5 billion from this tax in the fiscal year 1994,

³⁹ “Greenhouse gas emissions fell and emissions not included in the EU Emissions Trading System on the target path,” *Official Statistics of Finland (OSF)*, December 11, 2018, https://www.stat.fi/til/khki/2017/khki_2017_2018-12-11_tie_001_en.html

⁴⁰ Steven Greenhouse, “CLINTON’S ECONOMIC PLAN: The Energy Plan; Fuels Tax” Spreading the Burden,” *The New York Times*, February 18, 1993. <https://www.nytimes.com/1993/02/18/us/clinton-s-economic-plan-the-energy-plan-fuels-tax-spreading-the-burden.html?auth=login-email&login=email>

\$8.9 billion in 1995, \$16.4 billion in 1996 and \$22.3 billion in 1997.”⁴¹ However, President Clinton withdrew his policy because of the unpopularity of an energy tax.⁴² Since President Bill Clinton’s 1993 energy tax, there have been several carbon tax proposals in the United States. Another important climate change bill was introduced by Senators John McCain and Joe Lieberman. In 2003, they proposed the Climate Stewardship Act (CSA) of 2003.⁴³ The CSA would “limit total U.S. emissions of carbon dioxide emitted by power plants, refineries, and other industries.”⁴⁴ The goals of CSA were to “reduce dangers posed by our current energy system, dependence on foreign oil, and energy-related air pollution.”⁴⁵ This bill had a primary focus on economic growth and the creation of jobs. The McCain-Lieberman Climate Stewardship Act eventually lost in the Senate 43 to 55.⁴⁶ However, it “was the first serious congressional attempt to rein in global warming.”⁴⁷ In the past two years alone, seven members in the U.S. Congress have proposed a carbon tax at the federal level.⁴⁸ Although, many of them have not gained traction due to climate politics. Climate change is of growing importance among many Americans. A carbon tax policy could potentially limit fossil fuel emissions and mitigate the growing effects of climate change.

⁴¹ Ibid.

⁴² Terence Hunt, “Clinton Retreats from Energy Tax Based on Heat Content,” *AP News*, June 8, 1993, <https://apnews.com/0996f3fd2d777eaa4ef87f020fc80a0e>

⁴³ “S.139 – Climate Stewardship Act of 2003,” *108th Congress*, 2003-2004, <https://www.congress.gov/bill/108th-congress/senate-bill/139>

⁴⁴ James Barrett, J. Andrew Hoerner, and Jan Mutl, “Jobs and the Climate Stewardship Act,” *National Resources Defense Council*, February 2005, <https://www.nrdc.org/sites/default/files/CSAjobs.pdf>

⁴⁵ Ibid.

⁴⁶ Amanda Little, “The climate bill lost out, but the environment may yet to prove the winner,” *Grist*, November 5, 2003, <https://grist.org/article/thrill/>

⁴⁷ Ibid.

⁴⁸ “What You Need to Know About a Federal Carbon Tax in the United States,” *Columbia SIPA Center on Global Energy Policy*, <https://energypolicy.columbia.edu/what-you-need-know-about-federal-carbon-tax-united-states>

Since the inception of the IPCC in the late 1980s, the research and evidence on climate change have been gaining national attention. The evidence is clear that fossil fuel emissions are contributing to climate change. Even with two important agreements in the past thirty years, the Kyoto Protocol and the Paris Agreement, the world and United States mitigations efforts may not be doing enough to limit the effects of climate change. As illustrated, changing politics and policies play a key role in the history of climate change. In some countries, it has taken time, but a carbon tax has brought those countries to its specific emission goal. A carbon tax in the United States could be the beginning steps to help diminish the damaging effects of climate change today and into the future.

IV. Policy Proposal

The goal of this policy proposal is to reduce carbon emissions by 32-33% by 2025 and up to 90% by 2040 through the implementation of a carbon tax.⁴⁹ The focus of this policy proposal for reducing carbon emissions is an independent analysis of the Energy Innovation and Carbon Dividend Act of 2019 by Representative Ted Deutch [D-FL-22] on January 24, 2019.⁵⁰ The Energy Innovation and Carbon Dividend Act will target every individual and company in the United States.

First, an overview of the implications and stipulations from the Energy Innovation and Carbon Dividend Act of 2019. This bipartisan bill could potentially get the United States to reduce its carbon emissions level below the Paris Agreement criteria of 26-28%,

⁴⁹ Dr. Noah Kaufman, John Larsen, Peter Marsters, Hannah Kolus and Shashank Mohan, “An Assessment of the Energy Innovation and Carbon Dividend Act,” *Columbia SIPA Center on Global Energy Policy*, November 6, 2019, <https://energypolicy.columbia.edu/research/report/assessment-energy-innovation-and-carbon-dividend-act>

⁵⁰ “H.R.763 – Energy Innovation and Carbon Dividend Act of 2019,” *166th Congress*, January 24, 2019, <https://www.congress.gov/bill/116th-congress/house-bill/763>

below 2005 levels in 2025, and a long-term goal of 68-76%, below 2005 levels by 2050.⁵¹ The proposed Energy Innovation and Carbon Dividend Act (EICDA) of 2019 will impose a fee on the carbon content of fuels, including crude oil, natural gas, coal, or any other product derived from those fuels that will emit greenhouse gases.⁵² This carbon tax proposal would price carbon at \$15 per ton of carbon emitted and increase that fee by \$10 each following year.⁵³ Furthermore, this bill will exempt “certain fuels used by the military and for farming from the carbon fee, and will establish a Carbon Dividend Trust Fund to distribute back to households.”⁵⁴ This carbon tax will also be a “gradually-rising upstream fee on carbon content of fuels.”⁵⁵ The purpose of an upstream fee is to tax at the “extraction stage.”⁵⁶ This will create a space for companies to look towards using clean energy. For the EICDA to go into effect, it will have to go through the necessary authorization and implementation procedures.

The authorization for the Energy Innovation and Carbon Dividend Act of 2019 is straightforward. The authorization and implementation are an amendment to the Internal Revenue Code of 1986. For this authorization, it will need to start in the House of Representatives through congressional tax legislation. After a vote in the House, the bill

⁵¹ “USA Country Summary,” *Climate Action Tracker*, December 2, 2019, <https://climateactiontracker.org/countries/usa/>

⁵² Ibid.

⁵³ Timothy Cama and Miranda Green, “Bipartisan group of lawmakers propose landmark carbon tax,” *The Hill*, November 27, 2018, <https://thehill.com/policy/energy-environment/418596-bipartisan-group-of-lawmakers-propose-landmark-carbon-tax>

⁵⁴ Emily Wirzba, “The Energy Innovation and Carbon Dividend Act of 2019, Bill Analysis of H.R. 763,” *Friends Committee on National Legislation*, January 28, 2019, <https://www.fcnl.org/updates/the-energy-innovation-and-carbon-dividend-act-of-2019-1889>

⁵⁵ “Energy Innovation and Carbon Dividend Act: The Market-Based Climate Solution,” *Congressman Ted Deutch*, https://teddeutch.house.gov/uploadedfiles/energy_innovation_and_carbon_dividend_act_-_one_pager.pdf

⁵⁶ Sampson Quain, “The Definitions of “Upstream” and “Downstream” in the Production Process,” *Chron*, February 20, 2019, <https://smallbusiness.chron.com/definitions-upstream-downstream-production-process-30971.html>

would move to the Senate. Subsequently, the Senate would vote after markups on the proposed EICDA. Finally, sending it to the President of the United States for an authorized signature or veto. For a signed EICDA bill, the Internal Revenue Service (IRS) would then implement it. Similarly, to the Tax Cuts and Jobs Act (TCJA), the IRS would need to work the “Department of the Treasury (Treasury) and the Office of Management and Budget (OMB) to implement significant tax law changes” from the potential EICAD.⁵⁷ The IRS would be the agency responsible for the implementation of this proposed bill in conjunction with Treasury and OMB. The Energy Innovation and Carbon Dividend Act of 2019, once implemented, will slowly increase over time.

The Energy Innovation and Carbon Dividend Act of 2019 will gradually ramp up at \$15 per ton of carbon emitted and increase that fee by \$10 each following year. If passed, it would begin in 2020 and go into 2050. The scale of it would continue to increase each year the proposal would be in effect. This proposal continually ramping up each year will affect the criteria of it.

The targets of the Energy Innovation and Carbon Dividend Act of 2019 are mainly fossil fuels. The fossil fuels that EICDA targets are oil, natural gas, coal, or any other products from those fuels.⁵⁸ Moreover, the fee imposes on the producers or importers of the fuels.⁵⁹ The Energy Innovation and Carbon Dividend Act of 2019 will have a direct effect on the fossil fuel industry. According to researchers at Columbia

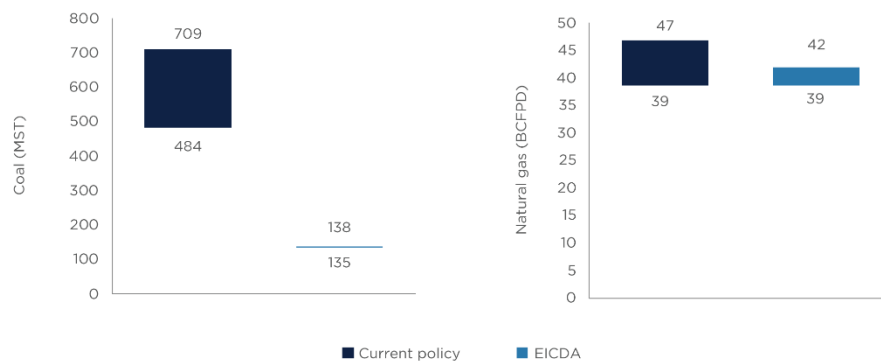
⁵⁷ “IRS Successfully Implemented Tax Law Changes but Needs to Improve Service for Taxpayers with Limited-English Proficiency,” *Government Accountability Office*, January 15, 2020, <https://www.gao.gov/reports/GAO-20-55/>

⁵⁸ “Summary: H.R.763 – 116th Congress (2019-2020), 116th Congress, January 24, 2019, <https://www.congress.gov/bill/116th-congress/house-bill/763>

⁵⁹ Ibid.

University, “the carbon tax has the largest impact on coal, because it is the most carbon-intensive fuel.”⁶⁰ Secondly, United States oil production will be unchanged because EICDA leads to “a reduction in net petroleum imports rather than a change in production.”⁶¹ The values in Figure 3 show the range of production of coal and natural gas. The figure illustrates the dramatic difference in coal production with an enacted EICDA and not a significant difference in natural gas production.

Figure 4: US fossil fuel production, 2030



Source: Rhodium Group analysis

Figure 3 – US fossil fuel production, 2030⁶²

The analysis by Columbia concludes that there would also not be a dramatic shift in natural gas in the United States. The figure above shows the drastic difference in coal production based on the implementation of EICDA. After the implementation of EICDA,

⁶⁰ Dr. Noah Kaufman, John Larsen, Peter Marsters, Hannah Kolus and Shashank Mohan, “An Assessment of the Energy Innovation and Carbon Dividend Act,” *Columbia SIPA Center on Global Energy Policy*, November 6, 2019, <https://energypolicy.columbia.edu/research/report/assessment-energy-innovation-and-carbon-dividend-act>

⁶¹ Ibid.

⁶² Ibid.

“the coal industry will probably be dead...will be associated with a rise in the cost of gasoline.”⁶³ Furthermore, this carbon tax will target a “charge fee on fossil fuels at the source.”⁶⁴ This may lead to a change in energy consumption in the United States with more reliance on renewable energy, natural gas, and oil. The shift in energy consumption, especially with increased gas prices will directly affect consumers. According to the Peterson Institute, “because everybody would face the same price increase, low-income households would be hit harder than richer households.”⁶⁵

The Energy Innovation and Carbon Dividend Act of 2019 will rely heavily on legislation passing through Congress, Senate, with a final signature from the President to authorize. The EICDA implementing through the IRS with potential supporting help from OMB, and others. The goal of this proposal is diminishing U.S. emissions in ten years and then significantly diminishing in 2050. The target audience of this policy will be all Americans and fossil fuel companies in the United States.

V. Policy Analysis

The policy analysis of the Energy Innovation and Carbon Dividend Act of 2019 will evaluate the key components of its potential positive and negative effects. Importantly, the Energy Innovation and Carbon Dividend Act of 2019 will need evaluating based on the criteria of efficiency, effectiveness, and equity.

⁶³ Robinson Meyer, “How to Cut U.S. Carbon Pollution by Nearly 40 Percent in 10 Years,” *The Atlantic*, November 13, 2019, <https://www.theatlantic.com/science/archive/2019/11/bipartisan-carbon-tax-columbia-study/601897/>

⁶⁴ “Energy Innovation and Carbon Dividend Act: The Bipartisan Climate Solution.” *Energy Innovation Act*, 2019, <https://energyinnovationact.org/how-it-works/?cn-reloaded=1>

⁶⁵ Monica de Bolle, “A Carbon Tax for the United States,” *Peterson Institute for International Economics*, September 30, 2019, <https://www.piie.com/blogs/realtime-economic-issues-watch/carbon-tax-united-states>

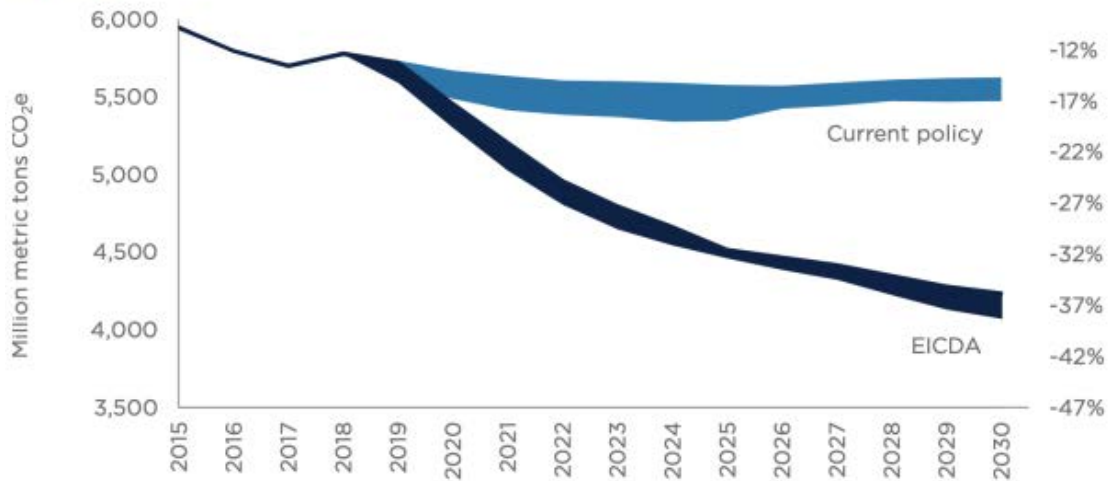
The Energy Innovation and Carbon Dividend Act of 2019 has several prominent pieces to the bill. First, the EICDA proposal goal is to reduce carbon pollution by 33% in 10 years and 90% by 2050.⁶⁶ The main goal of this proposal is to reduce greenhouse gas emissions substantially in the United States. The current policies mitigate and limit greenhouse gas emissions, but do not come close to the targets that were set in the Paris Agreement. Even though the current administration has backed out of that agreement, this policy focuses on achieving those benchmarks. According to a Rhodium Group Analysis, the EICDA will greatly drop emissions by about 33% in 2030 as compared to current policies. This specific analysis uses the National Energy Modeling System that the U.S. Energy Information Administration developed.⁶⁷ These estimates compare to

⁶⁶ Emily Wirzba, “The Energy Innovation and Carbon Dividend Act of 2018, Bill Analysis of H.R. 7173, *Friends Committee on National Legislation*, December 10, 2018, <https://www.fcnl.org/updates/the-energy-innovation-and-carbon-dividend-act-of-2018-1765>

⁶⁷ “Annual Energy Outlook 2020,” *EIA*, January 29, 2020, https://www.eia.gov/outlooks/aeo/info_nems_archive.php

2005 emissions levels against a stand-alone implementation of EICDA.⁶⁸

Figure 1: US economy-wide net GHG emissions, 2015-2030



Source: Rhodium Group analysis

Figure 4 – US economy-wide net GHG Emissions, 2015 – 2030⁶⁹

The implemented carbon tax and a general shift in energy usage will achieve the first target of Rep. Deutch’s policy proposal.

Second, the Energy Innovation and Carbon Dividend Act of 2019 could lead to millions of jobs created with continual increase overtime. Similar to EICDA, a REMI and Synapse analysis stated that similar legislation of a carbon tax and fee-and-dividend system could result in “2.1 million more jobs, 33% reduction in carbon dioxide emissions, and 13,000 premature deaths saved from air quality.”⁷⁰ A Brookings Institute

⁶⁸ “An Assessment of the Energy Innovation and Carbon Dividend Act” Rhodium Group, November 6, 2019, <https://rhg.com/research/an-assessment-of-the-energy-innovation-and-carbon-dividend-act/>

⁶⁹ Dr. Noah Kaufman, John Larsen, Peter Marsters, Hannah Kolus and Shashank Mohan, “An Assessment of the Energy Innovation and Carbon Dividend Act,” *Columbia SIPA Center on Global Energy Policy*, November 6, 2019, <https://energypolicy.columbia.edu/research/report/assessment-energy-innovation-and-carbon-dividend-act>

⁷⁰ Scott Nystrom and Patrick Luckow, “The Economic, Climate, Fiscal, Power, and Demographic Impact of a National Fee-and-Dividend Carbon Tax,” *REMI and Synapse*, Monday, June 9, 2014, <https://11bup83sxdss1xzeli3lp0l4-wpengine.netdna-ssl.com/wp-content/uploads/2018/05/The-Economic-Climate-Fiscal-Power-and-Demographic-Impact-of-a-National-Fee-and-Dividend-Carbon-Tax-5.25.18.pdf>

report outlines suggestions on how the US economy could shift towards this green energy after implementing a carbon tax similar to the EICDA. First, Brookings would “set aside at least the first \$30 billion of revenue annually for clean energy- and energy efficient-related (EE) research, design and development (RD&D) and technology deployment.”⁷¹ Throughout the Brookings analysis, there is an emphasis of this fund being “independently managed”⁷² and implementation by the federal government because industries will not shift to green energy on their own. The research and development of green technology would create new jobs and emerging industries. According to the Organization for Economic Co-operation and Development (OECD), “8.1 million people were employed in the renewable energy sector worldwide... [with] the US leading global employment in renewable energies.”⁷³ Based on a model by the OECD in 2030 “up to 20 million jobs could be created worldwide...US employment in the clean energy sector could be expanded by 4 million jobs in 2030 if a 30% renewable portfolio standard were

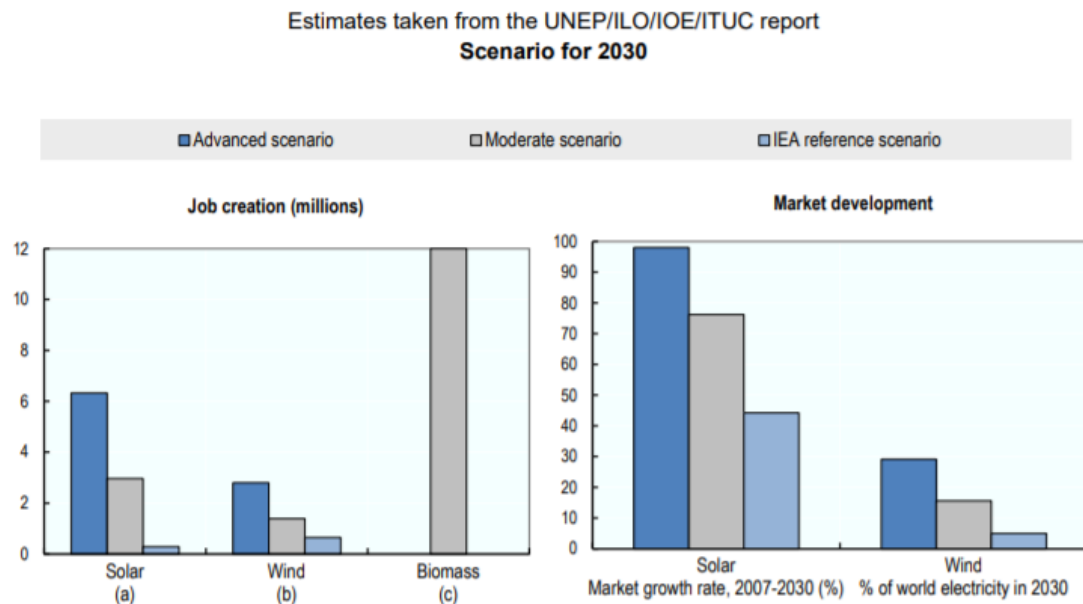
⁷¹ Mark Muro and Jonathan Rothwell, “Cute to Invest: Institute a Modest Carbon Tax to Reduce Carbon Emissions, Finance Clean Energy Technology Development, Cut Taxes, and Reduce the Deficit,” *Brookings Institute*, November 2012, <https://www.brookings.edu/wp-content/uploads/2016/06/13-carbon-tax.pdf>

⁷² Ibid.

⁷³ “Employment Implications of Green Growth: Linking jobs, growth, and green policies,” *Organization for Economic Co-operation and Development*, June 2017, <https://www.oecd.org/environment/Employment-Implications-of-Green-Growth-OECD-Report-G7-Environment-Ministers.pdf>

implemented together with energy efficiency measures.”⁷⁴

Figure 1. Large job creation possible within the renewable energy sector



Source: OECD (2012a) from UNEP, ILO, IOE and ITUC (2008), Green Jobs: Towards Decent Work in a Sustainable, Low-carbon World, Geneva.

Figure 5 – Large job creation possible within the renewable energy sector⁷⁵

As a carbon tax gradually increases, the shift in job creation in the renewable sector could simultaneously increase as these industries develop and grow. This job creation, intertwined with a potential RD&D monitored by the federal government, could also benefit the expansion of this emerging sector. Importantly, “the green economy is now worth as much as the fossil fuel sector and offers more significant and safe

⁷⁴ Ibid.

⁷⁵ Ibid.

investment,”⁷⁶ stated by the United Nations Framework Convention on Climate Change.

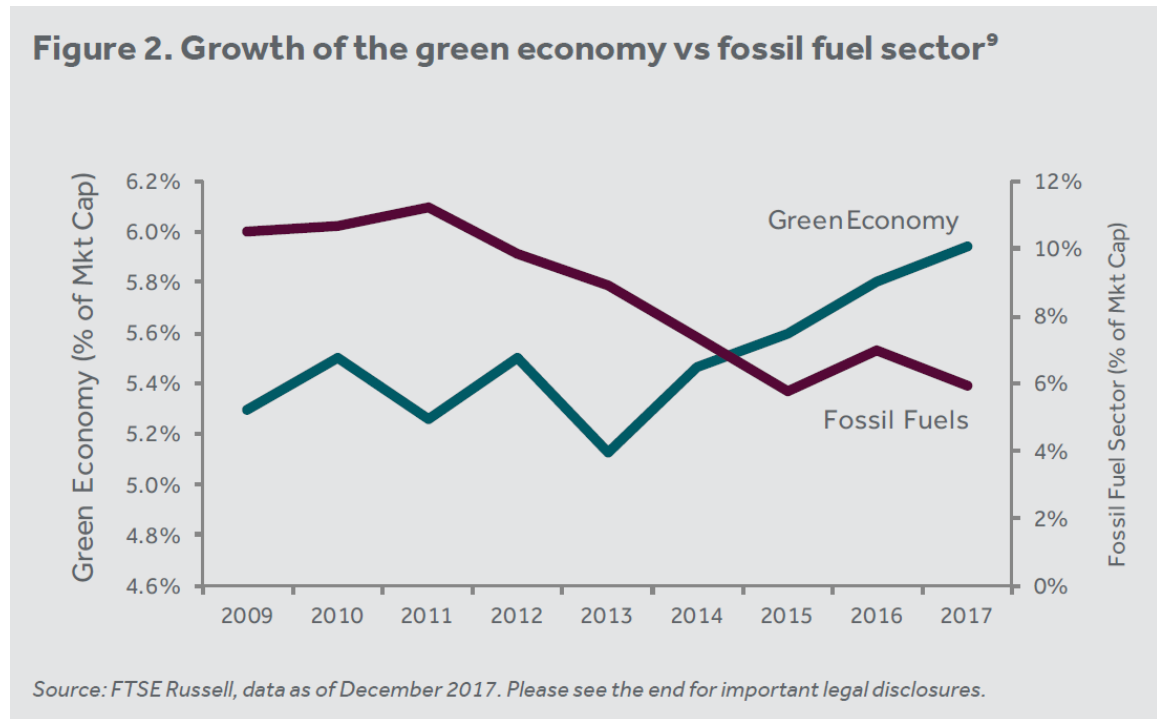


Figure 6 – Growth of the green economy vs fossil fuel sector⁷⁷

The green economy will continue to grow with more action towards climate change. The investment opportunity would also grow with a major federal shift with a carbon tax. The shift in the structure of the economy has the potential to lead to an increase in revenue through a carbon tax and a reduction in the United States debt.

Third, a carbon tax could be a key policy tool that would reduce the growing United States debt. The increasing United States debt is a major concern among economists. NPR reported on February 13, 2019, “the United States government’s public

⁷⁶ UN Climate News, “Green Economy Overtaking Fossil Fuel Industry – FTSE Russell Report,” *United Nations Framework Convention on Climate Change*, June 8, 2018, <https://unfccc.int/news/green-economy-overtaking-fossil-fuel-industry-ftse-russel-report>

⁷⁷ “Investing in the global green economy: busting common myths,” *FTSE Russell*, 2018, https://content.ftserussell.com/sites/default/files/research/fr_investing_in_the_global_green_economy.pdf

debt is now more than \$22 trillion – the highest it has even been.”⁷⁸ The United States’ debt continues to grow despite the economy hitting record levels during President Trump’s administration. The economy has hit record highs on multiple occasions throughout his presidency. The United States stock market hit a record high in November of 2019 and as recently as February 10, 2020, however, the debt continues to grow with no signs of stopping.⁷⁹⁸⁰ According to an International Monetary Fund (IMF) report, “the United States is on pace to lead the world in debt increase as a percentage of

⁷⁸ Bill Chappell, “U.S. National Debt Hits Record \$22 Trillion,” *NPR Economy*, February 13, 2019, <https://www.npr.org/2019/02/13/694199256/u-s-national-debt-hits-22-trillion-a-new-record-thats-predicted-to-fall>

⁷⁹ Heather Long, “U.S. stocks hit records highs this week. Analysts call it a ‘nervous rally,’” *The Washington Post*, November 22, 2019, <https://www.washingtonpost.com/business/2019/11/22/us-stocks-hit-record-highs-this-week-analysts-call-it-nervous-rally/>

⁸⁰ Reuters, “Wall Street Higher on U.S. Growth Optimism; Nasdaq Hits Record,” *The New York Times*, February 10, 2020, <https://www.nytimes.com/reuters/2020/02/10/business/10reuters-usa-stocks.html?auth=login-email&login=email>

GDP.”⁸¹

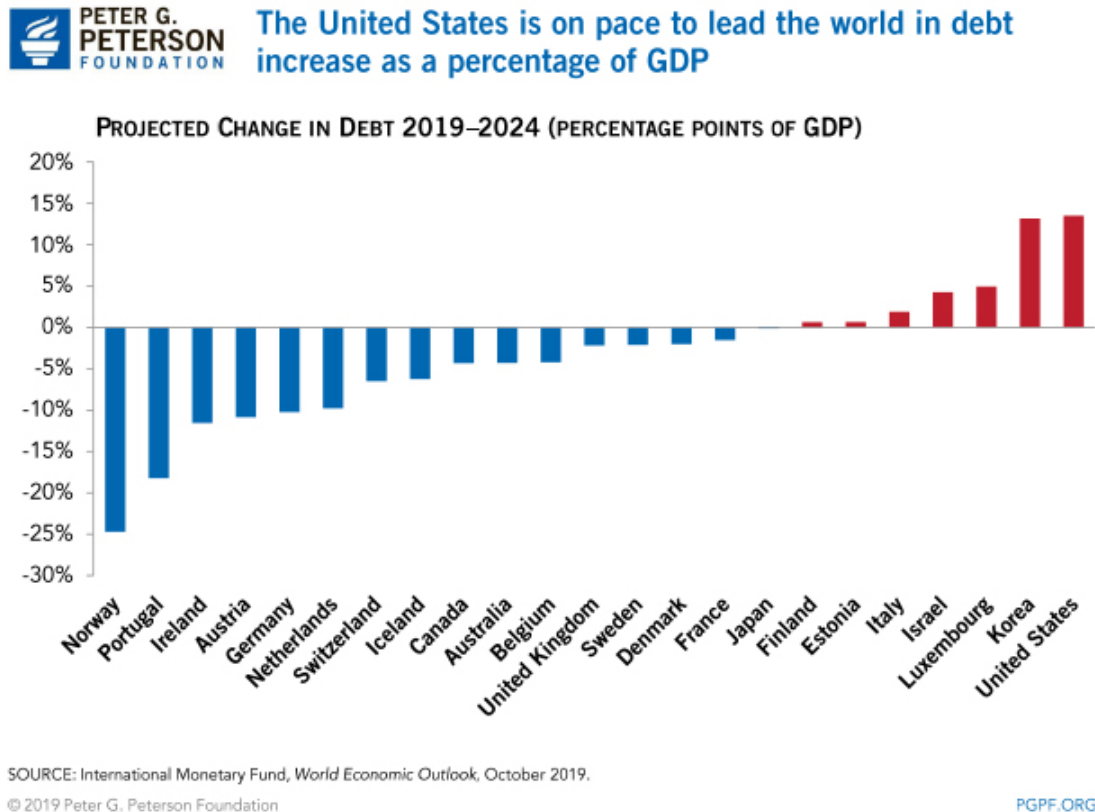


Figure 7 – The United States is on pace to lead the world in debt increase as a percentage of GDP.

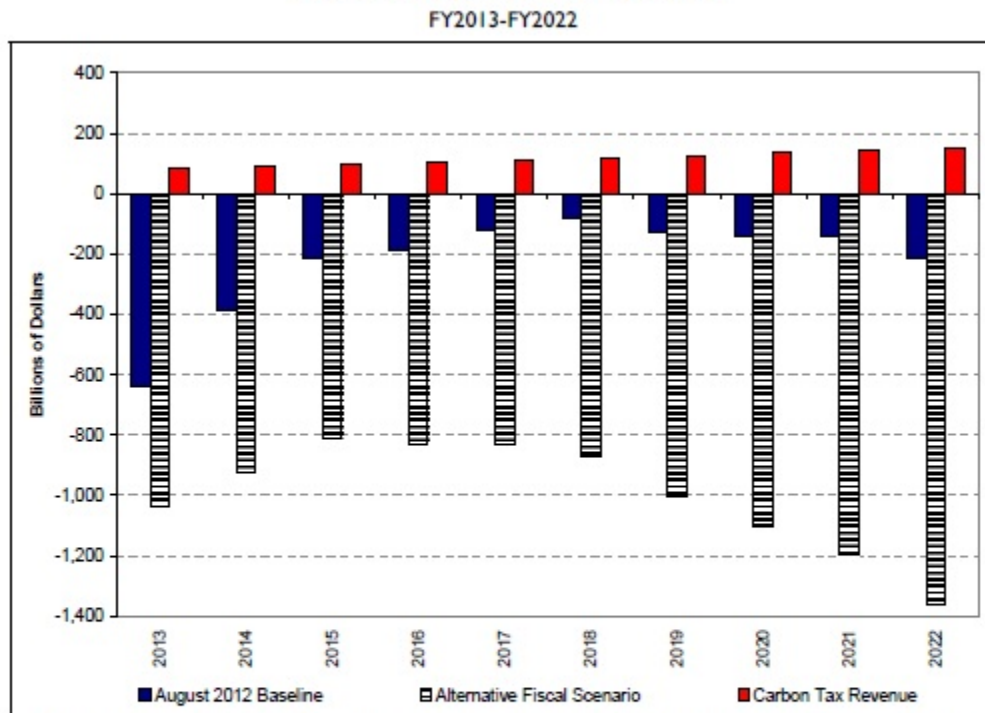
A carbon tax tool could be a step in the right direction to decrease the current deficit and debt in the United States. As seen in Figure 1, the United States is at unprecedented levels of debt in its history. Despite the projected growth of the global economy, growth in the United States expects to be slower.⁸² The slowdown in the growth of the United States economy in the upcoming years without any shift of policies will continue the national debt crisis. In 2011, the Congressional Budget Office report

⁸¹ “Debt is expected to grow faster in the United States than anywhere else in the world,” *Peter G. Peterson Foundation*, November 26, 2019, <https://www.pgpf.org/blog/2019/11/debt-is-expected-to-grow-faster-in-the-United-States-than-anywhere-else-in-the-world>

⁸² Ibid.

projected how much revenue generation by enacting an isolated carbon tax policy.

Figure 4. CBO Estimated Revenues from a \$20/mtCO₂ Carbon Tax Compared to Two CBO Budget Deficit Projections



Source: Prepared by CRS. Carbon tax revenue estimates from CBO, *Reducing the Deficit: Spending and Revenue Options*, Washington, DC, March 2011, pp. 205-206; Budget deficit estimates from CBO, *An Update to the Budget and Economic Outlook: Fiscal Years 2012 to 2022*, August, 2012.

Notes: The 2012 baseline estimates are based on current law. The alternative scenario assumes that (1) most expiring tax provisions are extended and the Alternative Minimum Tax (AMT) is adjusted for inflation, (2) Medicare's payment rates for physicians' are held constant at current levels, and (3) that the automatic spending reductions required by the Budget Control Act (BCA) do not occur. Revenues from the carbon tax are assumed to start in FY2013.

Figure 8 – CBO Estimated Revenues from a \$20/mt CO₂ Carbon Tax Compared to Two CBO Budget Deficit Projections

The enacting of this carbon tax could generate \$1.2 trillion over ten years.⁸³ This tax could lead to investment within the United States such as healthcare, infrastructure, and the education system. According to the Committee for a Responsible Budget, an enacted carbon tax could decrease the United States debt by \$1420 billion by 2030 and a total

⁸³ "CRS: Carbon Tax would Take a Chunk Out of the Deficit," *Committee for a Responsible Federal Budget*, September 27, 2012, <http://www.crbf.org/blogs/crs-carbon-tax-would-take-chunk-out-deficit>

decrease in debt per GDP by 13% by 2050.⁸⁴ A carbon tax would lead to new sources of revenue, limit greenhouse gas emissions and would help promote the usage of clean, renewable energy. A carbon tax would directly affect the United States' effort in battling the growing global concern of climate change. The transformation of the economy, industries, and general life will come with its flaws as well.

The Energy Innovation and Carbon Dividend Act of 2019 does come with its

Figure 6: US average gasoline prices, 2020 and 2030



Source: Rhodium Group analysis

Figure 9 – US average gasoline prices, 2020 and 2030

drawbacks. First, a price on carbon will “increase the costs of fuels and electricity for all consumers across the economy.”⁸⁵ The chart on US average gasoline prices increases by almost \$1.50 per gallon by 2030. This may pose a future problem because the Trump Administration “is inching closer to rolling back fuel efficiency standards that were

⁸⁴ “Other Taxes,” The Debt Fixer, *Committee for a Responsible Federal Budget*, accessed February 9, 2020, <http://www.crfb.org/debtfixer/>

⁸⁵ Dr. Noah Kaufman, John Larsen, Peter Marsters, Hannah Kolus and Shashank Mohan, “An Assessment of the Energy Innovation and Carbon Dividend Act,” *Columbia SIPA Center on Global Energy Policy*, November 6, 2019, <https://energypolicy.columbia.edu/research/report/assessment-energy-innovation-and-carbon-dividend-act>

enacted by the Obama administration for new vehicles through 2026.”⁸⁶ This increase in gasoline with or without the fuel efficiency standards could also cause a consumer response of “travel demand declines and [to] choose electric vehicles.”⁸⁷ Not only would it affect gasoline prices, but it may also increase the cost of producing goods and services because “electricity or transportation, involve relatively large amounts of CO₂ emissions.”⁸⁸

A second negative side effect of the EICAD could be the allocation of revenue generated by the bill. Specifically, a carbon tax is “considered to be ‘regressive’ – it hits lower-income families harder than upper-income ones.”⁸⁹ According to the CBO, “low-income households generally spend a larger percentage of their income on emission-intensive goods.”⁹⁰ This would directly affect the equity of this bill. If the final distributions are not equal through the Dividend Trust Fund, or a greater portion goes to the populations that are most affected it could raise concerns for public support. However, according to Columbia SIPA, “[EICDA] is a progressive tax because the proportion of the tax payments from high-income individuals is higher than the proportion of the population that is higher-income individuals.”⁹¹ This is a progressive tax that is barring no significant markups to the bill throughout the authorization process.

⁸⁶ Joseph Guzman, “Trump administration moves closer to cutting fuel efficiency standards,” *The Hill*, January 15, 2020, <https://thehill.com/changing-america/sustainability/energy/478397-trump-administration-moves-closer-to-cut-fuel>

⁸⁷ Ibid. 66

⁸⁸ Ibid. 67

⁸⁹ John Wihbey, “Pros and Cons of a Carbon Tax: Key Issues,” *Yale Climate Connections*, July 20, 2016, <https://www.yaleclimateconnections.org/2016/07/pros-and-cons-of-a-carbon-tax-key-issues/>

⁹⁰ “Effects of a Carbon Tax on the Economy and the Environment,” *Congressional Budget Office*, May 2013, http://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/44223_Carbon_0.pdf

⁹¹ Ibid. 66

A third consideration is the effect a changing economy would have on current fossil fuel jobs. The fossil fuel industry has been an important part of the world and the United States economy. According to the U.S. Energy Information Administration (EIA), “in 2018, about 79% of energy production was from fossil fuels, and 80% of domestic energy consumption originated from fossil fuels.”⁹² A shift to a green economy is going to take a massive revamp of United States industries. In 2018, “the Fuels sector grew by nearly 5% for a total of 1,112,764 jobs.”⁹³ A switch to a green economy would continue to stall growth and potentially remove most of these jobs altogether.

The Energy Innovation and Carbon Dividend Act meets the important criteria of effectiveness, efficiency, and equity. First, this policy will be effective because of the carbon pricing measures and the gradual increase over time. The Citizens’ Climate Lobby states that this policy would be effective because it would lead to an emissions reduction in America by 40% in twelve years.⁹⁴ The main goal of the EICDA is to reduce U.S. carbon emissions by 33% in 10 years and 90% by 2050 and if enacted to its full potential, it will greatly diminish emissions.⁹⁵ Since the money from this bill is allocating equally between households,⁹⁶ there is equity to this proposal. The Organization for Economic Co-operation and Development (OECD) and the World Bank

⁹² “Fossil fuels continue to account for the largest share of U.S. Energy,” *U.S. Energy Information Administration*, September 18, 2019, <https://www.eia.gov/todayinenergy/detail.php?id=41353>

⁹³ “The 2019 U.S. Energy and Employment Report,” *NASEO & EFI*, 2020, <https://static1.squarespace.com/static/5a98cf80ec4eb7c5cd928c61/t/5c7f3708fa0d6036d7120d8f/1551849054549/USEER+2019+US+Energy+Employment+Report.pdf>

⁹⁴ “The Bipartisan Climate Solution,” *Citizens’ Climate Lobby*, <https://citizensclimatelobby.org/energy-innovation-and-carbon-dividend-act/>

⁹⁵ “Energy Innovation and Carbon Dividend Act: The Market-Based Climate Solution,” *Chris Coons United States Senator for Delaware*, <https://www.coons.senate.gov/imo/media/doc/Energy%20Innovation%20and%20Carbon%20Dividend%20Act%20One-Pager.pdf>

⁹⁶ Ibid 71.

Group on Climate Change created the FASTER Principles for Successful Carbon Pricing. The six FASTER Principles for Successful Carbon Pricing are fairness, alignment of policies and objectives, stability and predictability, transparency, efficiency and cost-effectiveness, reliability and environmental Integrity.⁹⁷ The Carbon Pricing Leadership Coalition (CPLC) states that the EICDA “meets all 6 of the FASTER Principles.”⁹⁸ Fairness through the household dividend that is between Main Street enterprises and consumers. The alignment principle allows modifications happening across borders. The stability principle is through a “steadily rising price and intensifying internalization of externalities.”⁹⁹ The transparency principle works because of the upstream carbon tax fee. The CPLC states, “the main street economy receives a steadily rising infusion of new household spending, entrepreneurial competition ensures efficiency and limits cost to the wider economy.”¹⁰⁰ Lastly, the reliable principle is meeting the criteria because over time the economy will shift to clean energy by 2050 ensuring reliable environmental integrity. Upon evaluation, the EICDA policy proposal meets the critical criteria with transformative actions, however, the negative effects need adjustments to gather political support.

⁹⁷ “The FASTER Principles for Successful Carbon Pricing: An approach based on initial experience,” *OECD and World Bank Group Climate Change*, September 2015, <http://documents.worldbank.org/curated/en/901041467995665361/pdf/99570-WP-PUBLIC-DISCLOSE-SUNDAY-SEPT-20-4PM-CarbonPricingPrinciples-1518724-Web.pdf>

⁹⁸ Joseph Robertson, “Bipartisan carbon fee and dividend bill now before U.S. Congress,” *Carbon Pricing Leadership Coalition*, February 4, 2019, <https://www.carbonpricingleadership.org/blogs/2019/2/3/bipartisan-carbon-fee-and-dividend-bill-now-before-us-congress>

⁹⁹ Ibid.

¹⁰⁰ Ibid.

VI. Political Analysis

The political feasibility of a carbon tax in any form is a key debate in recent years. The Energy Innovation and Carbon Dividend Act of 2019 is currently a bipartisan climate solution.¹⁰¹ This bill is only bipartisan because out of the eighty cosponsors there are seventy-nine Democrats and one lone Republican, Francis Rooney [R-FL19] who is retiring at the end of his term.¹⁰²¹⁰³

There are four key stakeholders for the EICDA: the public, Democrats, Republicans, and fossil fuel companies. Any change in the tax code will have ramifications on the public as stated in the policy proposal. For this legislation to become law, it will likely need more bipartisan support among Democrats and Republicans. By implementing the EICDA, it would directly affect fossil fuel companies and their revenue because of the carbon emissions they produce. These considerations of political ideology, previous carbon tax results and other facets are central in the discussion of the political feasibility of the Energy Innovation and Carbon Dividend Act of 2019.

A carbon tax or carbon pricing has not been politically feasible in the United States. Barry Rabe, a professor at the University of Michigan said, “Economists widely agree that introducing a carbon price is the single most effective way for countries to reduce their emissions, political barriers have largely deterred elected officials from

¹⁰¹ <https://scottpeters.house.gov/media-center/in-the-news/there-s-bipartisan-support-for-a-fee-on-carbon-emissions-americans-would>

¹⁰² Natalie Andrews and Alex Leary, “Republican Rep. Francis Rooney of Florida to Retire After Two Terms, *The Wall Street Journal*, October 19, 2019, <https://www.wsj.com/articles/republican-rep-francis-rooney-of-florida-to-retire-after-two-terms-11571507919>

¹⁰³ “H.R. 763: Energy Innovation and Carbon Dividend Act of 2019,” *Govtrack*, 2019, <https://www.govtrack.us/congress/bills/116/hr763/details>

taking such steps.”¹⁰⁴ This political hurdle has continuously happened in the United States. Twenty-three states from 2002 to 2010 had in place a version of carbon pricing, however, “13 of these states abandoned their commitments by 2015.”¹⁰⁵ These political hurdles are more than just placing a carbon tax or pricing plan in a state. In a Jenkins-Karplus paper, these constraints develop into three categories: concerns about distribution impact, willingness to pay, and opposition from fossil fuel interests.¹⁰⁶ These political concerns are similar to the opposition toward President Bill Clinton’s 1993 BTU tax. The opponents to the tax deemed that “higher prices might spur, suggesting the tax would disproportionately harm less privileged Americans...anti-poor.”¹⁰⁷ A tax on carbon may be a regressive tax on society with increased energy bills for all Americans. The political ramifications and attacks will need considerations. Similarly, this opposition critique of the 1993 BTU tax used against the EICDA could be effective. Additionally, even in one of the most liberal states, Washington, a carbon tax failed on a 56-44 vote.¹⁰⁸ Similarly, to the opposition with President Clinton’s BTU tax in 1993.

Economists found these four lessons from the failure in Washington: 1) political ideology; 2) voters give little weight to the benefits of a carbon tax; 3) well-organized, well-funded opposition to a carbon tax can erode support; 4) based on projections from Washington State experience, no voters currently would approve a carbon tax

¹⁰⁴ Mandira Banerjee, “Is carbon pricing politically feasible?” *University of Michigan News*, April 19, 2018, <https://news.umich.edu/is-carbon-pricing-politically-feasible/>

¹⁰⁵ Ibid.

¹⁰⁶ Jesse Jenkins and Valerie Karplus, “Carbon pricing under binding political constraints,” *United Nations University UNU-Wider*, April 2016, <https://www.wider.unu.edu/sites/default/files/wp2016-44.pdf>

¹⁰⁷ Leah Stokes and Matto Mildenberger, “The Politics of Equitable Climate Policy,” *Scholars Strategy Network*, 2016, <https://scholars.org/page/politics-equitable-climate-policy>

¹⁰⁸ David Roberts, “Washington votes no one a carbon tax – again,” *Vox*, November 6, 2018, <https://www.vox.com/energy-and-environment/2018/9/28/17899804/washington-1631-results-carbon-fee-green-new-deal>

initiative.¹⁰⁹ The most significant takeaway the authors discovered was “opponents of the 2018 version outspent supports by 2-1 and successfully reframed the measure from the “fee” used in the ballot language to a tax.”¹¹⁰ For a carbon tax to be successful, nationwide it is going to need money to back it for the long haul of debates. Those identified four lessons from the Washington State failure can potentially be used going forward as a national campaign of the EICDA.

Public opinion on climate change and a potential carbon tax may continue to shift in the future.

POLICY SUPPORT

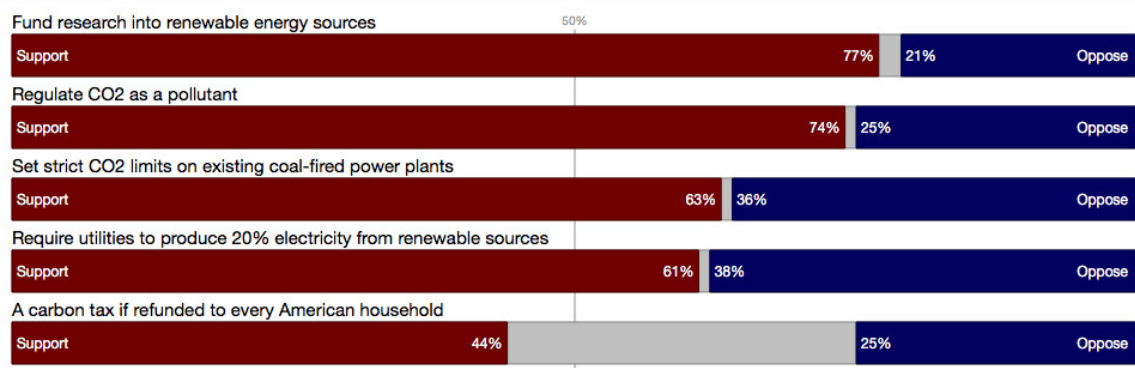


Figure 10 – Policy Support by Yale University

The data above is from the 2014 National Surveys on Energy and Environment provided by Yale University.¹¹¹ In this figure, there is a generally a great amount of support for a policy to regulate CO2 emissions, however, only 44% would want a refunded dividend which is interesting because it could lead to high-level income families with a net tax

¹⁰⁹ Howard Gleckman, “Why Carbon Taxes Are So Hard to Pass,” *Tax Policy Center*, August 15, 2019, <https://www.taxpolicycenter.org/taxvox/why-carbon-taxes-are-so-hard-pass>

¹¹⁰ Ibid.

¹¹¹ “2014 National Surveys on Energy and Environment,” *Yale University*, 2016, <https://environment.yale.edu/poe/v2014/>

increase.¹¹² Five years later in the same poll, these numbers have slightly changed: 82% support research into renewables, 72% regulate CO₂, 68% strict CO₂ limits, 62% require utilities, and interestingly, 66% require fossil fuel companies to pay a carbon tax.¹¹³ Even in a five-year time series, there is growth amongst policies regarding CO₂ emissions and a carbon tax.

Analyzing these general polls about climate change does not provide the full scope of the situation. To pass EICDA into law it will need bipartisan support from both parties. There are differences among the political parties, even among the proponent Democratic Party.

¹¹² David Roberts, “The 5 most important questions about carbon taxes, answered,” *VOX*, June 27, 2019, <https://www.vox.com/energy-and-environment/2018/7/20/17584376/carbon-tax-congress-republicans-cost-economy>

¹¹³ Jennifer Marlon et al., “Yale Climate Opinion Maps 2019,” *Yale University*, September 17, 2019, <https://climatecommunication.yale.edu/visualizations-data/ycom-us/>

One of the Democratic Party's key issues is climate change.

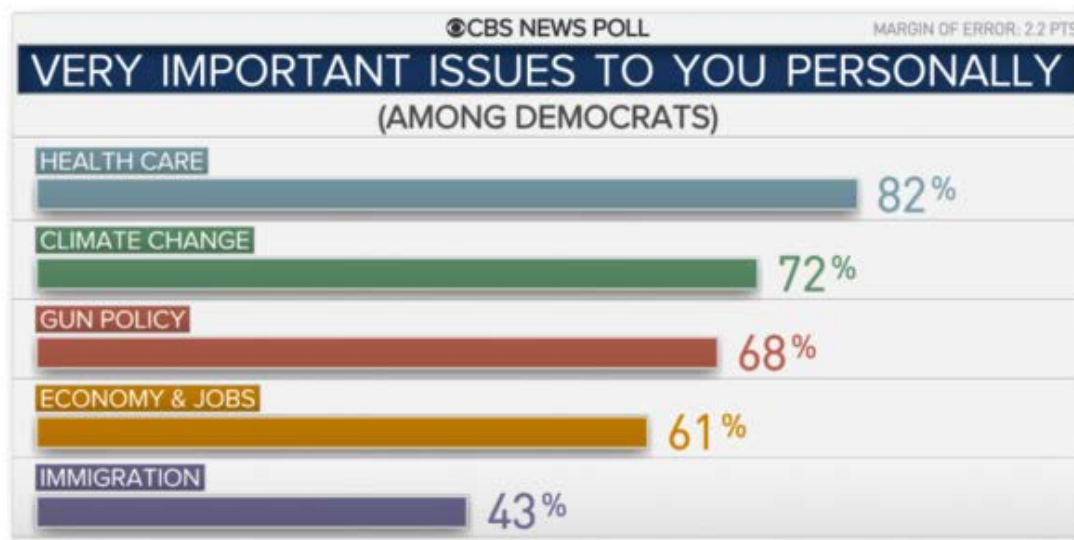


Figure 11 – CBS News Poll: Very Important Issues to You Personally

This CBS News poll shows that 72% of Democrats consider climate change a very important issue to them personally.¹¹⁴ Climate change is a critical issue for the 2020 Democratic nomination for President. According to the Washington Post, a majority of former and current candidates “would support setting a price on carbon, such as with a carbon tax or cap-and-trade.”¹¹⁵ The nominees who said they would support it include Former Vice President Joe Biden, former Mayor Michael Bloomberg, Mayor Pete

¹¹⁴ Fred Backus, “Climate change will be an issue for most voters in 2020 – CBS News Poll,” *CBS News*, September 16, 2019, <https://www.cbsnews.com/news/cbs-news-poll-climate-change-will-be-an-issue-for-most-voters-in-2020/>

¹¹⁵ “Where Democrats Stand,” *The Washington Post*, 2020, <https://www.washingtonpost.com/graphics/politics/policy-2020/climate-change/carbon-tax/>

Buttigieg and Senator Elizabeth Warren.¹¹⁶

Carbon Pricing Proposals in the 116th Congress

Proposed Legislation	Type	Price	Emissions Tracking	Revenue Use
Energy Innovation and Carbon Dividend Act, Rep. Ted Deutch [D-FL-22] (HR 763)	Fee and Dividend	\$15, increasing by \$10 each year	Reaches 10% of 2016 emissions by 2050. Review by National Academy after 10 years.	Dividend to U.S. citizens or lawful residents.
Healthy Climate and Family Security Act, Sen. Chris Van Hollen [D-MD], Rep. Don Beyer [D-VA-8] (S 940, HR 1960)	Cap and Dividend	Market driven	Cap declines by 2040 to 80% less than emissions of 2005.	Dividend to U.S. citizens with Social Security number.
American Opportunity Carbon Fee Act, Sheldon Whitehouse [D-RI] (S 1128)	Fee and Partial Dividend	\$52, increase annually by undetermined amount	Unclear	Dividend to U.S. citizens. Grants to states for low-income.
Climate Action Rebate Act, Sen. Chris Coons [D-DE] and Rep. Jimmy Panetta [D-CA-20] (S 2284, HR 4051)	Fee and Partial Dividend	\$15, increasing by \$15 each year	Decline to 45% of 2017 emissions by 2030.	70% rebate to low-income, remaining for infrastructure, innovation, assistance
Stemming Warming and Augmenting Pay Act, Francis Rooney [R-FL-19] (HR 4058)	Tax and Partial Dividend	\$30, increase by 5%/yr and \$3 every 2 yrs if emission goals not met	Small reduction	70% for reduction of payroll taxes, 10% to social security beneficiaries, 20% to low-income
Raise Wages, Cut Carbon Act, Rep. Dan Lipinski [D-IL-3] (HR 3966)	Tax and Social Security Tax Reduction	\$40, 2.5% increase/yr if emission goals not met	Unclear	Low-income energy assistance, social security beneficiaries (10%)
America Wins Act, Rep. John Larson [D-CT-1] (HR 4142)	Tax - Revenue for Various Uses and Refund	Unspecified	None	Transportation and various; "energy refund program" return to households, other refunds/rebates
The Modernizing America with Rebuilding to Kickstart the Economy of the Twenty-first Century with a Historic Infrastructure Centered Expansion Act, Rep. Ryan Fitzpatrick [R-PA-1] (HR 4520)	Tax - Revenue for Highways	\$35, increase by 5% each year	Tracking by National Climate Commission (bi-partisan, 10-member group).	70% to highways, 10% for low-income, myriad other uses

Figure 12 – Carbon Pricing Proposals in the 116th Congress¹¹⁷

There have been various legislation proposals for carbon pricing in the 116th Congress. The Energy Innovation and Carbon Dividend Act of 2019 still has yet to be held for a vote. The last action for EICDA was “referred to the Subcommittee on Energy” a day after it was introduced.¹¹⁸ The stall in a Democratic majority House of Representatives could be partially due to the potential toxicity that comes with a vote on a carbon tax. Even the former 2016 Democratic Nominee for President, Hillary Clinton, “steered clear of embracing a price on carbon pollution, for fear that it would be attacked

¹¹⁶ Ibid.

¹¹⁷ “Know the Legislation,” *Price on Carbon*, March 10, 2020, <https://priceoncarbon.org/business-society/history-of-federal-legislation-2/>

¹¹⁸ “All Actions H.R.763 – 116th Congress (2019-2020),” *116th Congress*, 2019, <https://www.congress.gov/bill/116th-congress/house-bill/763/all-actions?overview=closed&KWICView=false>

as an energy tax.”¹¹⁹ Furthermore, Mryon Ebell, who led the EPA transition for the Trump Administration said, “It’s a good policy to adopt if you want to lose an election.”¹²⁰

The political hesitancy from the Democratic Party on a carbon tax is evident. In 2015, Sen. Chuck Schumer (D-N.Y.) stated, “to enact a carbon tax if the Democrats prevail in the 2016 elections.”¹²¹ For this Democrat-led policy proposal, it would require a majority in both the House of Representatives and the Senate, as well as a Democrat in the White House to support the legislation. This may be the underlying reason why there is not full support from Democratic leadership. One, the political history and toxicity of a carbon tax. Second, Democrats not having full control of the legislative powers. Third, the ramifications and fallout of voting “yes” on a carbon tax. These are important to consider when potentially moving the Energy Innovation and Carbon Dividend Act of 2019 to a vote. Conversely, bipartisan and even Republican introduced carbon pricing proposals may be an indicator of the changing viewpoints of a potential carbon tax.

The effects of climate change and a potential carbon tax policy is polarizing within the Republican Party. A Pew Research survey in 2019 shows that within the

¹¹⁹ Coral Davenport and Trip Gabriel, “Climate Town Hall: Several Democratic Candidates Embrace a Carbon Tax,” *The New York Times*, September 7, 2019, <https://www.nytimes.com/2019/09/04/us/politics/democrats-climate-change-plans.html>

¹²⁰ Ibid.

¹²¹ Elana Schor, “Schumer: Carob tax has a chance if Clinton wins,” *Politico*, June 23, 2015, <https://www.politico.com/story/2015/06/schumer-carbon-tax-has-a-chance-if-clinton-wins-119352>

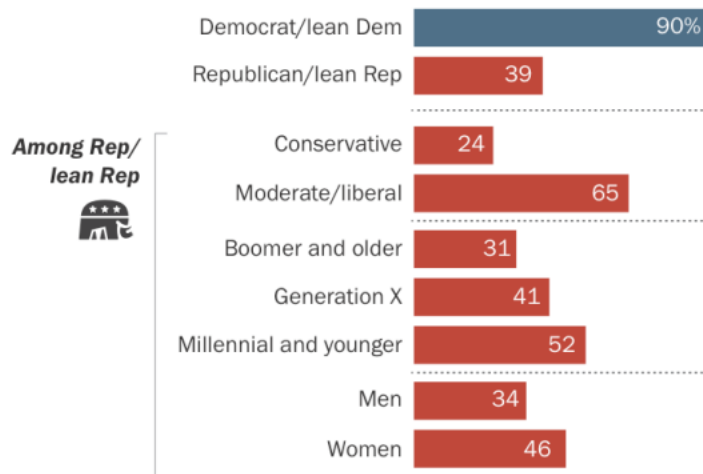
Republican Party they differ by age and gender.

Majorities of Americans say the federal government is not doing enough to protect the climate, environment

% of U.S. adults who think the federal government is doing too little to ...



% of U.S. adults who think the federal government is doing too little to reduce the effects of climate change



Note: Respondents who said the federal government is doing about the right amount or doing too much and those did not give an answer are not shown.

Source: Survey conducted Oct. 1-13, 2019.

"U.S. Public Views on Climate and Energy"

PEW RESEARCH CENTER

Figure 13 – Majorities of American say the federal government is not doing enough to protect the climate, environment

This figure shows that the “majority of moderate or liberal Republicans (65%) say the federal government is doing too little to reduce the effects...adults in the Millennial

generation and Generation Z (52%) think the government is doing too little.”¹²² The differences in age and gender play an important role in the Republican Party.

Furthermore, in the case of a carbon tax “Conservative Republicans stand out as particularly skeptical about the benefits of climate policies for the environment.”¹²³

Republicans, young and old, tend to be skeptical about effects of climate policy on the economy

% of U.S. adults who say policies to reduce the effects of climate change generally do the following

	Effect on the environment			Effect on U.S. economy		
	More good than harm	Make no difference	More harm than good	Help	Make no difference	Hurt
U.S. adults	54	29	15	33	35	30
Dem/lean Dem	71	17	10	47	38	13
Rep/lean Rep	34	43	22	15	31	52
<i>Among Republicans/lean Rep</i>						
Boomer & older	29	47	22	12	31	54
Gen X	36	39	24	14	29	55
Millennial & younger	40	39	19	21	32	46
Men	31	45	23	13	23	63
Women	37	41	20	18	40	39

Note: Respondents who did not give an answer to each question are not shown.

Source: Survey conducted Oct. 1-13, 2019.

“U.S. Public Views on Climate and Energy”

PEW RESEARCH CENTER

Figure 14 – Republicans, young, and old tend to be skeptical about effects of climate policy on the economy

These viewpoints among Republicans are going to be crucial for this bill to gain more bipartisan support. However, in recent years, a change in how a carbon tax would affect

¹²² Cary Funk and Meg Hefferon, “U.S. Public Views on Climate and Energy,” *Pew Research Center*, November 25, 2019, <https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/>

¹²³ Ibid.

revenue may entice Republican support. Vox reported that “many conventional economists, along with some of the few conservatives who take climate policy seriously, favor a ‘tax shift’: using the carbon tax revenue to reduce other taxes.”¹²⁴ Gregory Mankiw, a leading economist, agreed in an essay stating that, “revenue from a carbon tax could be used to reduce payroll taxes in a way that would leave the distribution of total tax burden approximately unchanged.”¹²⁵ Additionally, Mankiw argues “the Treasury Department [is] fully capable of designing a package of tax hikes and tax cuts that together internalize externalities and leave the overall distribution of the tax burden unchanged.”¹²⁶

Mankiw is not the only person that argues for this style of a carbon tax tradeoff for a tax cut. Former Republican Bob Inglis and American economist Arthur Laffer highlight this idea. In a New York Times piece they state, “offer us a tax swap, and we could become the new administration’s best allies on climate change.”¹²⁷ Moreover, they write, “we could clean the air, create wealth and jobs through a new technology boom and drastically improve our national security.”¹²⁸ This could be the ideology to persuade Republicans on the Energy Innovation and Carbon Dividend Act of 2019. This information tethered with the shift in ideological views for younger Republican voters could be an important target area to gain more bipartisan support. Recently, Inglis’ organization RepublicEn has a carbon tax where the “current version of the tax would

¹²⁴ David Roberts, “The political hurdles facing a carbon tax – and how to overcome them,” *Vox*, April 26, 2016, <https://www.vox.com/2016/4/26/11470804/carbon-tax-political-constraints>

¹²⁵ N. Gregory Mankiw, “Smart Taxes: An Open Invitation to Join the Pigou Club,” *Eastern Economic Journal*, 2009, http://scholar.harvard.edu/files/mankiw/files/smart_taxes.pdf

¹²⁶ Ibid.

¹²⁷ Bob Inglis and Arthur Laffer, “An Emissions Plan Conservatives Could Warm To,” *The New York Times*, December 27, 2008, <https://www.nytimes.com/2008/12/28/opinion/28inglis.html>

¹²⁸ Ibid.

charge \$25 per ton of carbon dioxide emissions...the tax proceeds would be returned to the people via tax cuts or dividend.”¹²⁹ The avenue to more bipartisan support on a carbon tax or the effects of climate change may still take time. Nevertheless, the evolving shift in the ideology of climate change within the Republican Party may help move a carbon tax closer towards larger support.

Another major stakeholder for the Energy Innovation and Carbon Dividend Act of 2019 are the fossil fuel companies. Interestingly, there has been momentum from fossil fuel companies, specifically oil companies to move towards a United States carbon tax plan. Bloomberg reports, “Oil companies, automakers, and consumer products manufacturers will unleash a campaign for a U.S. tax on carbon dioxide emission even though it may lead to higher prices for their products.”¹³⁰ This shift is in part because fossil fuel companies are changing their position “on climate change in response to pressure from investors and growing public alarm about Earth’s rising temperature.”¹³¹

Public pressure and especially investor pressure are important reasons why fossil fuel companies are willing to back a carbon tax plan.¹³²¹³³ Furthermore, big fossil fuel companies that are part of the Climate Leadership Council are “advocating for a \$40-per-ton fee on carbon emissions that would increase...revenue would be collected by the

¹²⁹ James Rainey, “Bob Inglis, a Republican believer in climate change, is out to convert his party,” *NBC News*, September 30, 2018, <https://www.nbcnews.com/news/us-news/bob-inglis-republican-believer-climate-change-out-convert-his-party-n912066>

¹³⁰ Jennifer Dlouhy and Ari Natter, “Oil Companies Join Corporate Lobbying Push for U.S. Carbon Tax,” *Bloomberg*, May 20, 2019, <https://www.bloomberg.com/news/articles/2019-05-20/oil-companies-join-corporate-lobbying-push-for-u-s-carbon-tax>

¹³¹ Ibid.

¹³² Justin Worland, “The Reason Fossil Fuel Companies Are Finally Recoking with Climate Change,” *Time*, January 16, 2020, <https://time.com/5766188/shell-oil-companies-fossil-fuels-climate-change/>

¹³³ Anna Mikulska, “Investor pressure is driving climate action at fossil fuel companies,” *Axios*, July 31, 2019, <https://www.axios.com/investor-pressure-driving-climate-action-fossil-fuel-companies-fd35584a-e8d1-49ae-b98f-2e701ddf3d42.html>

government and redistributed back to citizens in the form of a dividend.”¹³⁴ Exxon, the world’s leading publicly traded oil company donated “\$1 million to promote a U.S. tax on carbon-gas emissions.”¹³⁵

These initial steps are important for this key stakeholder. Nevertheless, there is more information on why fossil fuel companies are supporting a carbon tax. Vox reports, “what’s gone largely unnoticed is that Exxon’s proposal comes with a massive catch: in exchange for the tax, the company wants immunity from all climate lawsuits in the future.”¹³⁶ This is because “14 cities, counties, and one state have sued fossil fuel companies.”¹³⁷ The immunity that fossil fuel companies seek are going to be important for political feasibility and lobbying. The fossil fuel companies play an integral role in the potential implementation of a carbon tax.

To be politically feasible, EICDA needs to have overall support from all the key stakeholders: public, Democrats, Republicans, and fossil fuel companies. There will need to be a compromise from all the stakeholders for a serious push towards a carbon tax. The political ramifications from a carbon tax could be costly for political careers; on the other hand, the long-term upside potential is a serious consideration. The Energy Innovation and Carbon Dividend Act of 2019 needs to address the clear politically

¹³⁴ Miranda Green and Alex Gangitano, “Oil companies join blitz for carbon tax,” *The Hill*, May 22, 2019, <https://thehill.com/policy/energy-environment/445100-oil-companies-join-blitz-for-carbon-tax>

¹³⁵ Gary McWilliams, “Exxon puts \$1 million into climate group promoting U.S. carbon tax,” *Reuters*, October 9, 2018, <https://www.reuters.com/article/us-exxon-mobil-climatechange-donation/exxon-puts-1-million-into-climate-group-promoting-u-s-carbon-tax-idUSKCN1MJ2E9>

¹³⁶ Umair Irfan, “Exxon is lobbying for a carbon tax. There is, obviously, a catch.” *Vox*, October 18, 2018, <https://www.vox.com/2018/10/18/17983866/climate-change-exxon-carbon-tax-lawsuit>

¹³⁷ Umair Irfan, “Pay attention to the growing wave of climate change lawsuits,” *Vox*, June 4, 2019, <https://www.vox.com/energy-and-environment/2019/2/22/17140166/climate-change-lawsuit-exxon-juliana-liability-kids>

feasibility issues and garner a significant amount of bipartisan support for successful movement on this bill.

VII. Recommendation

Full implementation of the Energy Innovation and Carbon Dividend Act of 2019 allows the proposal to hit its main goal of reducing carbon emissions by 33% in 10 years and 90% by 2050. The supporting policy analysis of this bill makes a case on certain levels of its positive effects on mitigating emissions. The EICDA has the potential of creating millions of new jobs, changing the energy sector, and protecting future generations. Additionally, the Energy Innovation of Carbon Dividend Act will generate a tremendous amount of revenue that will be returning to Americans. Furthermore, the EICDA has the potential of reducing the national debt. As we have seen in recent years, climate change is increasingly a critical issue among American citizens. Economists state that a carbon tax policy would be the most effective way to mitigate the effects of climate change. The Energy Innovation and Carbon Dividend Act of 2019 would hit its goals and transform the environment for future generations.

Nevertheless, the political ramifications of the Energy Innovation and Carbon Dividend Act of 2019 will ultimately continue the stalemate in Congress. Moreover, Speaker Pelosi, **I recommend that you do not support the Energy Innovation and Carbon Dividend Act of 2019.** First, the policy pieces may be successful, however, in the current political climate this bill would not pass. With the Democrats only holding a majority in House of Representatives, this bill would not gain nearly enough support from Republicans in the Senate. Additionally, President Trump would not sign a bill for

a carbon tax with his beliefs on Climate Change. Reconsidering this bill after the results of the elections in November of 2020 is reasonable if Democrats gain the majority in all branches of the government.

Second, a carbon tax has yet to pass at the state level even in a Democrat-leaning state of Washington. The money and campaigns of oppositions have been able to persuade voters against passing a carbon tax despite the scientific evidence. For this bill to be nationally recognized it needs to succeed at the state level. Third, the political toxicity and consequences that are at stake here at this moment are too much to risk. Rep. Pelosi, as Speaker of the House, it is more significant to focus on uniting the Democratic Party than to promote a proposal that will receive significant backlash from Republicans, fossil fuels companies, and the American people if they strongly believe this is a regressive tax. Especially amid of an election year where polarization among voters is at heightened levels.

The Energy Innovation and Carbon Dividend Act of 2019 has many upsides and avenues that will greatly mitigate the effects of climate change. However, the political aspect of this a climate change-related bill would not pass without full Democratic control in Congress and the White House. In conclusion, I recommend that you do not pursue sponsoring the Energy Innovation and Carbon Dividend Act of 2019.

Curriculum Vitae

Michael Shaheen

Date of Birth: May 9, 1995

Place of Birth: Quincy, Massachusetts

Education

Johns Hopkins University, Washington, D.C.

Master of Arts in Public Management, 2018 – 2020

University of Massachusetts Amherst, Amherst, MA

Bachelor of Science in Communication Disorders, 2013 – 2017

Work Experience

Federal Deposit Insurance Corporation, Washington, D.C.

Program Specialist, February 2019 – Present

- Handled administrative duties and various other aspects of multiple Division of Risk Management Supervision (RMS) training conferences: 2019 RMS Case Manager and Commissioned Examiner Training (5 sessions); 2019 Regional Management Training; and 2019 Washington Office Management Meeting
- Created and managed a system to compile and analyze expenses for RMS training events
- Drafted materials and handled other administrative issues for the Advisory Committee on Community Banking (CBAC) and the Advisory Committee of State Regulators (ACSR)
- Developed a system to track completion of computer-based training for Operation Choke Point for all RMS examination-related staff
- Directed and guided Student Trainee team, researched, created materials and presented to RMS executive management on Fintech Deposit Insurance Applications
- Developed prototypes for weekly Global RMS Communication
- Completing Section 508 Compliance Training provided by the Department of Homeland Security and amended various RMS materials (on-the-job training programs and advisory committee materials) to comply with Section 508
- Contributed to the development of the RMS Subject Matter Expert Program

- Supported development of videos for the OnTAP Committee (an executive oversight committee) and the FDIC Technical Assistance Video Program
- Facilitated and completed daily tasks for executive management
- Explored and provided feedback for potential RMS software
- Demonstrated initiative with all tasks assigned and handled multiple time-sensitive assignments
- Consulting and advising advice for the 2020 RMS Student Intern Program

Panera Bread, Raynham, Massachusetts; Amherst, Massachusetts

Catering Manager and Shift Supervisor, February 2011 – August 2018

- Started as an Associate and promoted to Trainer, Shift Supervisor, and Catering Manager
- Delegated and directed associates' tasks and roles during each shift
- Managed and operated the café during each shift
- Finalized and properly handled opening/closing safe operations
- Increased catering revenue and exceeded the company goal of 20% in 18 months as Catering Manager
- Maintained and created relationships with outside entities to expand catering business
- Organized and developed methods to better improve storage and inventory
- Conducted and ordered inventory of all products in the café
- Created and implemented catering communication strategies internally and externally for customers and management staff
- Trained and instructed new employees on the correct procedures and safety
- Clarified customer and associate problems and resolved issues in a timely manner

Awards

FDIC 2019 Individual Mission Achievement Award

Skills

Computer

- MS Office: Outlook, Word, PowerPoint, Excel, Teams, One Note
- Adobe Creative Cloud: Acrobat Pro, Photoshop, InDesign, Illustrator
- Section 508 Compliance

- ANDI accessibility tool for Section 508 Compliance
- Color Contrast Analyzer tool for Section 508 Compliance
- Insperty OrgPlus 2012 and Microsoft Visio for organization charts for executive management
- ACTS Software for RMS correspondence
- TurningPoint App, Camtasia, and PPspLit for PowerPoint Presentations
- General quantitative method abilities to provide distributions, linear regressions, and basic modeling for data driven tasks
- @Risk Software for Risk Modeling
- R and R Studio Software for data analysis and regression modeling