DECEMBER 2014 U.S. POLICY

# COMPARISON OF CARBON PRICING PROPOSALS IN THE 113TH CONGRESS

CENTER FOR CLIMATE AND ENERGY SOLUTIONS

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**Market-based policies that put a price on greenhouse gases can reduce emissions cost-effectively while driving clean energy innovation. This brief compares six carbon pricing proposals introduced in the 113th Congress (2013-2014).**

Six proposals to put a price on carbon were introduced in the 113th Congress (2013-2014). Five would establish a carbon tax (also called a "carbon pollution fee") and one would establish a cap-and-dividend program (a cap-and-trade program that would rebate program revenues to consumers).

This brief compares the proposals by key attributes, highlighting similarities and differences. The proposals are:

- The Climate Protection Act of 2013 (S.332) introduced by Sens. Bernie Sanders (I-VT) and Barbara Boxer (D-CA) on February 14, 2013;
- The Managed Carbon Price Act, 2014 (H.R.4754) introduced by Rep. Jim McDermott (D-WA) on May 28, 2014;
- The Healthy Climate and Family Security Act of 2014 (H.R.5271) introduced by Rep. Chris Van Hollen (D-MD) on July 30, 2014; and
- America's Energy Security Trust Fund Act of 2014 (H.R.5307) introduced by Rep. John Larson (D-CT) on July 31, 2014;
- The American Opportunity Carbon Fee Act (S.2940), introduced by Sen. Sheldon Whitehouse (D-RI) and Sen. Brian Schatz (D-HI) on November 19, 2014; and
- The State Choices Act introduced (H.R.5796) by Rep. John Delaney (D-MD) on December 4, 2014.

The proposals differ in how a price on carbon is imposed, who and what are covered, and even who imposes the price. For example, the Sanders-Boxer, McDermott, and Larson proposals would all apply a carbon price to the carbon content of fossil fuels at a point upstream or midstream (i.e., coal mines, refineries, natural gas processing plants, or importers) while the Whitehouse-Schatz proposal would apply a fee to the carbon content of fossil fuels at a point upstream or midstream and to emitters of other greenhouse gases covered by the U.S. Environmental Protection Agency (EPA) Greenhouse Gas Reporting Rule. In contrast, the Delaney proposal does not dictate how a fee would be imposed, instead directing EPA to allow states the option of using a carbon tax to meet requirements under EPA's proposed carbon pollution standards for existing power plants.

Other differences include the starting level of the price, how quickly it increases over time, and how the revenue is used. The Sanders-Boxer proposal, for example, would set a $20 per ton carbon pollution fee that rises 5.6 percent per year over a 10-year period. Sixty percent of revenues would go back to consumers through a rebate, and the rest would be invested in renewable energy, energy efficiency, and deficit reduction. The Larson proposal would establish a $10 per metric ton tax that rises at a fixed rate of $10 per year. Revenues would be used first for transition assistance to affected industries, then to fill the shortfall in the Highway Trust Fund, and to all households through a payroll tax credit. The Whitehouse-Schatz proposal would establish a $42 per ton fee that rises 2 percent over inflation per year. Revenues could be used for a variety of goals, such as: corporate tax reduction, deficit reduction, dividend, and Social Security.

The following table highlights key characteristics of each proposal.

| POLICY FEATURES | SANDERS-BOXER'S CLIMATE PROTECTION ACT OF 2013 | MCDERMOTT'S MANAGED CARBON PRICE ACT OF 2014 | VAN HOLLEN'S HEALTHY CLIMATE AND FAMILY SECURITY ACT OF 2014 | LARSON'S AMERICA'S ENERGY SECURITY TRUST FUND ACT OF 2014 | WHITEHOUSE-SCHATZ'S AMERICAN OPPORTUNITY CARBON FEE ACT | DELANEY'S STATES CHOICES ACT OF 2014 |
|---|---|---|---|---|---|---|
| *Carbon Pricing Mechanism* | Carbon pollution fee | Federal emission permit | Carbon permit | Carbon tax | Carbon dioxide and other greenhouse gas emission fee | Carbon tax |
| *Start Date* | January 1, 2014, or the first calendar year beginning at least 180 days after enactment. | January 1, 2015 | January 1, 2015 | January 1, 2016 | January 1, 2015 | January 1, 2015 |
| *Regulating Authority* | U.S. Environmental Protection Agency (EPA). | U.S. Treasury Department. | U.S. Treasury Department in consultation with EPA. | U.S. U.S. Treasury Department. | Jointly administered by EPA and U.S. Treasury Department. | Not specified. States would have discretion. |
| *Substances Covered Under the Proposal* | $CO_2$ content of a carbon polluting substance defined as: coal, petroleum, petroleum products, or natural gas that when used, will release GHGs. | $CO_2$ equivalent content of a GHG emitting substance defined as: coal, petroleum, natural gas, $CH_4$, $N_2O$, $SF_6$, PFC, HFC, and other substances identified by EPA. | $CO_2$ from combusting covered fuel (crude oil, natural gas, coal, or any other combustible fuel) sold in the United States. | $CO_2$ content of a taxable carbon substance defined as: crude oil, natural gas, coal, that is extracted, manufactured, or produced in the United States. | $CO_2$ equivalent content of greenhouse gas identified in Table A-1 to Subpart A of EPA's GHG reporting rule. | $CO_2$ equivalent content of a GHG defined as any of the following: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), sulfur hexafluoride ($SF_6$), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and other fluorinated gases. |
| *Point of Coverage* | Covered entity is any manufacturer (such | Covered entities include coal | Covered entity is the first seller of oil, coal, | Covered entity means manufacturer, | Covered entity includes coal | Existing stationary source as defined by |

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| *(i.e., Covered Entity)* | as an oil refinery or natural gas processing facility), producer, or importer of a carbon polluting substance. | producers, oil refineries, first seller of natural gas, or other producers or importers of GHG-emitting substances. | or natural gas into the U.S. market. | producer, or importer of crude oil, natural gas, or coal. | producers, oil refineries, first sellers of natural gas, or other producers or importers of fossil fuel products.<br>Also includes entities (except for fossil fuel producers listed above) required to report emissions under EPA's GHG Reporting Rule (40 CFR 98), and that emit 25,000 metric tons or more of $CO_2$ equivalent. | Sec. 111(a)(3) of the Clean Air Act (42 U.S.C. 7411(a)(3)). |

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<tr>
<th>POLICY FEATURES</th>
<th>SANDERS-BOXER'S CLIMATE PROTECTION ACT OF 2013</th>
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<th>LARSON'S AMERICA'S ENERGY SECURITY TRUST FUND ACT OF 2014</th>
<th>WHITEHOUSE-SCHATZ'S AMERICAN OPPORTUNITY CARBON FEE ACT</th>
<th>DELANEY'S STATES CHOICES ACT OF 2014</th>
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<td>Emission Targets and Timetables</td>
<td>Bill expresses the sense of Congress that the United States carry out activities to reduce emissions by at least 80 percent below 2005 levels by 2050.</td>
<td>Federal emission permit price based on meeting the emission target for a given period:
<table>
<tr><th>Year</th><th>Avg. Target</th></tr>
<tr><td>2025-2029</td><td>30% below 1990 levels</td></tr>
<tr><td>2035-2039</td><td>50% below 1990 levels</td></tr>
<tr><td>2045-2049</td><td>70% below 1990 levels</td></tr>
<tr><td>2055-2059</td><td>80% below 1990 levels</td></tr>
</table></td>
<td>Carbon permit price based on meeting the emission target for a given period:
<table>
<tr><th>Year</th><th>Avg. Target</th></tr>
<tr><td>2016</td><td>10% below 2005 levels</td></tr>
<tr><td>2020</td><td>20% below 2005 levels</td></tr>
<tr><td>2025</td><td>30% below 2005 levels</td></tr>
<tr><td>2030</td><td>40% below 2005 levels</td></tr>
<tr><td>2035</td><td>50% below 2005 levels</td></tr>
<tr><td>2040</td><td>60% below 2005 levels</td></tr>
<tr><td>2045</td><td>70% below 2005 levels</td></tr>
<tr><td>2050</td><td>80% below 2005 levels</td></tr>
</table></td>
<td>Not specified.</td>
<td>For any calendar year in which national emissions target attainment is at least 80 percent below 2005 levels, the fee for the following year will rise at the rate of inflation.</td>
<td>Not specified.</td>
</tr>
<tr>
<td>Carbon Price and Escalation Rate</td>
<td>Carbon pollution fee would start at $20 per ton of $CO_2$ content (including $CO_2$ equivalent content of methane) of the carbon polluting substance. The fee increases by 5.6 percent per year (rounded to the nearest dollar) over a</td>
<td>Federal emission permit price is determined by meeting an emission target for a given period.<br>A permit price schedule necessary to meet the emission targets for years 2017 to 2021 must be published by 2016.</td>
<td>Carbon permit price is determined by auction.<br>Participation in the auction is limited to covered entities. The Treasury Secretary is required to hold at least four auctions a year, limit how many permits a single participant can</td>
<td>The tax would start at $10 per metric ton of $CO_2$ content of a taxable carbon substance in 2016. In subsequent years, the tax increases at a fixed rate of $10 per year.<br>$CO_2$ content in taxable carbon substances will be determined by the</td>
<td>Fee set at $42 per metric ton of $CO_2$ equivalent, increasing at least 2% above inflation (as measured by the Consumer Price Index) and rounded to the nearest dollar.
<table>
<tr><th>Year</th><th>Applicable</th></tr>
</table></td>
<td>The tax would start at $20 per metric ton of $CO_2$ equivalent. In subsequent years, the tax increases at least 4% above inflation (as measured by the Consumer Price Index).</td>
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<tr><th>POLICY FEATURES</th><th>SANDERS-BOXER'S CLIMATE PROTECTION ACT OF 2013</th><th>MCDERMOTT'S MANAGED CARBON PRICE ACT OF 2014</th><th>VAN HOLLEN'S HEALTHY CLIMATE AND FAMILY SECURITY ACT OF 2014</th><th>LARSON'S AMERICA'S ENERGY SECURITY TRUST FUND ACT OF 2014</th><th>WHITEHOUSE-SCHATZ'S AMERICAN OPPORTUNITY CARBON FEE ACT</th><th>DELANEY'S STATES CHOICES ACT OF 2014</th></tr>
<tr>
<td></td>
<td>10-year period, holding at the 10-year value in subsequent years.
<table>
<tr><th>Year</th><th>Applicable amount</th></tr>
<tr><td>1</td><td>$20</td></tr>
<tr><td>2</td><td>$21</td></tr>
<tr><td>3</td><td>$22</td></tr>
<tr><td>4</td><td>$23</td></tr>
<tr><td>5</td><td>$24</td></tr>
<tr><td>6</td><td>$25</td></tr>
<tr><td>7</td><td>$26</td></tr>
<tr><td>8</td><td>$27</td></tr>
<tr><td>9</td><td>$28</td></tr>
<tr><td>10</td><td>$29</td></tr>
<tr><td>11</td><td>$30</td></tr>
<tr><td>12 or later</td><td>$30</td></tr>
</table>
Five years after enactment, the EPA Administrator would recommend to Congress how to best administer the carbon fee program after the 12th calendar year, including a future fee schedule.</td>
<td>For 2020 and later, a schedule of annual permit prices must be published at least five years in advance. The emission permit price for each year (adjusted for inflation) must be in the following range:
<table>
<tr><th>Year</th><th>Range</th></tr>
<tr><td>2015</td><td>$6.25 - $18.75</td></tr>
<tr><td>2016</td><td>$18.75 - $31.25</td></tr>
<tr><td>2017</td><td>$31.25 - $43.75</td></tr>
<tr><td>2018</td><td>$43.75 - $56.25</td></tr>
<tr><td>2019</td><td>$56.25 - $68.75</td></tr>
<tr><td>2020</td><td>$68.75 - $82.25</td></tr>
<tr><td>2021</td><td>$81.25 - $93.75</td></tr>
<tr><td>2022</td><td>$93.75 - $106.25</td></tr>
<tr><td>2023</td><td>$106.25 - $118.75</td></tr>
<tr><td>2024</td><td>$118.75 - $131.25</td></tr>
</table>
Starting in 2023 and every 10 years thereafter, the Treasury Secretary</td>
<td>purchase at a single auction, and set a price floor.<br><br>If the carbon permit price increases more than 50% above the two-year average price, the Secretary can auction as many permits as needed to stabilize the price. Unsold permits in reserve must be auctioned first before additional permits can be auctioned. The auctioning of additional permits will reduce the aggregate amount of permits made available in later years.</td>
<td>Treasury Secretary in consultation with the Secretary of Energy.</td>
<td>
<table>
<tr><th></th><th>amount</th></tr>
<tr><td>2015</td><td>$42</td></tr>
<tr><td>2016</td><td>$43</td></tr>
<tr><td>2017</td><td>$44</td></tr>
<tr><td>2018</td><td>$45</td></tr>
<tr><td>2019</td><td>$46</td></tr>
<tr><td>2020</td><td>$47</td></tr>
<tr><td>2021</td><td>$48</td></tr>
<tr><td>2022</td><td>$49</td></tr>
<tr><td>2023</td><td>$50</td></tr>
<tr><td>2024</td><td>$51</td></tr>
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| | | must publish a 10-year minimum and maximum price schedule.<br>The Secretary could adjust the permit price depending on whether GHG emission targets are being met. | | | | |
| *Tax credits or Refunds* | Not specified. | Treasury Secretary can issue a refund (without interest) for a covered substance that does not contribute to climate change. | Treasury Secretary can issue carbon permits in the amounts equivalent to the metric tons of $CO_2$ that is captured and sequestered from combustion of covered fuels in the United States. | A credit or refund (without interest) can be issued in the amount equivalent to the number of tons of $CO_2$ for a covered substance used as feedstock that has no associated emission, or for the capture and sequester of $CO_2$ from a covered substance. | A refund (without interest) can be issued in the amount equivalent to the number of metric tons of $CO_2$ for: a covered fossil fuel product (i.e., coal, petroleum product, or natural gas) used as a feedstock that has no associated emission, the utilization or capture and secure storage of $CO_2$ from a covered fossil fuel product, and export of fossil fuel product.<br>Refunds for capture and storage or utilization are discounted by the | N/A |

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| | | | | | amount of anticipated leakage. | |
| *Energy Intensive, Trade Exposed* | Equivalency fee imposed on imported carbon-intensive goods, differentiated by classes of products and country of origin.<br>This annual fee would expire when exporting countries adopt equivalent measures, or when the EPA Administrator deems the fee no longer necessary. | Equivalency fee imposed on imported carbon-intensive goods.<br>Reimbursement for permit equivalency fee (without interest) paid on exports.<br>This fee would expire when exporting countries adopt equivalent measures, or when it is no longer deemed necessary. | Equivalency fee imposed on imported carbon-intensive goods.<br>Reimbursement for permit equivalency fee (without interest) paid on exports.<br>This fee would expire when exporting countries adopt equivalent measures, or when it is no longer deemed necessary. | Equivalency fee imposed on imported carbon-intensive goods.<br>Reimbursement for permit equivalency fee (without interest) paid on exports.<br>This fee would expire when an international climate agreement with equivalent measures comes into effect, or when exporting countries adopt equivalent measures, or when it is deemed no longer necessary. | The Treasury Secretary has discretion in imposing an equivalency fee on imported goods, and in issuing an equivalency refund on exported goods, from countries without a comparable carbon pricing program.<br>The Treasury Secretary must consult with the EPA Administrator and the Secretary of Energy in determining the amounts of equivalency fees and refunds. | N/A |
| *Use of Revenue* | 60 percent of the revenues (not including the import fee) would be rebated to U.S. citizens and legal residents on a monthly basis.<br>40 percent of the | Revenue will be used to establish an Energy and Economic Security Trust Fund that will issue a monthly dividend to each taxpayer who is a lawful resident of the United States. | Revenue will be used to establish a Healthy Climate Trust Fund that will issue a monthly dividend to individuals with a valid Social Security number (other than a nonresident alien) | Revenue will be used to establish an America's Energy Security Trust Fund with three purposes.<br>First, revenues will be used to provide transition assistance to workers in industries | Revenue will be used to establish an American Opportunity Trust Fund that could be used for:<br>Assistance to low-income families and those living in areas with higher energy | N/A |

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| | revenues would be used to establish a Pollution Reduction Trust Fund. For first 10 years, this fund will annually allocate: $7.5 billion to mitigate impacts of the fee on energy-intensive, trade-exposed industries; $5 billion for weatherization of low-income homes; $1 billion for clean energy job training; $2 billion for ARPA-E; and the balance would go toward deficit reduction.<br>Revenues from the carbon equivalency fee on imports would be split between building/improving critical infrastructure and improving resilience to climate change. | | who are legally residing in the United States.<br>Any individual may opt out of receiving the trust fund dividend payment.<br>The dividend would be excluded in determining gross income for tax purposes. | harmed by this Act. Transition assistance would decrease over time and would be zero after 2025.<br>Secondly, the revenues will be used to make up the shortfall in the Highway Trust Fund.<br>Finally, the remaining revenues will be divided on a per-capita basis and provided as a carbon tax rebate of payroll tax to individuals. | costs;<br>Offset Tax cuts;<br>Supplemental increases for Social Security benefits;<br>Tuition assistance and student debt relief;<br>Infrastructure investments;<br>Dividends to individuals and families;<br>Transition assistance to workers and businesses in energy-intensive and fossil-fuel industries;<br>Climate mitigation or adaptation measures that promote national security; and<br>Reducing the national debt. | |
| *Treatment of Existing State* | Not specified. | Not specified. | This bill does not pre-empt GHG regulations under the Clean Air | Not specified. | Not specified. | N/A |

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| *Programs* | | | Act, and does not pre-empt state and regional GHG initiatives. | | | |
| *Other Relevant Items* | The bill would create a $5 billion Sustainable Technologies Finance program under EPA to provide financial assistance (i.e. loans, credits, loan guarantees) for eligible projects (e.g., renewables, energy efficiency, and advanced transportation projects) that reduce GHG emissions. | N/A | Within two years of enactment, EPA would be required publish a list of non-covered GHG emissions and issue regulations covering these sources within 10 years. | Within six months of enactment, the Treasury Secretary, in consultation with the Energy Secretary, will submit a report to Congress on the best methods to assess and collect tax on non-carbon GHGs similar to the tax imposed on carbon under this Act, and legislative recommendations as deemed appropriate. | Starting in 2016, directs Treasury and EPA to establish a program to collect data on methane leakage from fossil fuels, and directs Treasury Secretary to increase the fee assessed on covered fossil fuel products (i.e., coal, petroleum products, and natural gas). | N/A |

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