

## **A Detailed Summary of The Cap and Trade Program Provisions Contained in HR 2454**

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On June 26, 2009, the United States House of Representatives passed the American Clean Energy and Security Act (HR 2454), a comprehensive bill addressing climate change and energy issues, by a vote of 219 to 212. The Bill marks the first time that climate change legislation has been passed by a full house of Congress. The Senate is currently considering its own climate change legislation. The full House Bill is over one thousand pages long, and in addition to establishing a cap and trade program for greenhouse gas emissions, contains titles that address clean energy, energy efficiency, and transitioning to a clean energy economy. Many of the summaries provided of the Bill to date lack detail. This paper provides a more detailed summary of the approximately 350 pages that make up the cap and trade program in the Bill.

### **I. Title III – Reducing Global Warming Pollution, Subtitle A – Reducing Global Warming Pollution.**

#### **A. Global Warming Pollution Reduction Goals And Targets.**

The Bill provides that the cap and trade program must cap and annually reduce the greenhouse gas (“GHG”) emissions from capped sources such that, in 2012, GHG emissions from such sources will not exceed 97% of 2005 emissions from those sources. The percentage is reduced to 83% by 2020, 58% by 2030 and 17% by 2050.<sup>2</sup>

#### **B. Designation Of GHGs.**

The following are designated as GHGs: carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons from a chemical manufacturing process at an industrial stationary source, perfluorocarbons, and nitrogen trifluoride.<sup>3</sup> Any person is allowed to petition the Environmental Protection Agency (“EPA”) to have additional gases added to the list.<sup>4</sup>

#### **C. Reporting Requirements And The Definition Of “Covered Entity” And “Reporting Entity”.**

“Reporting Entities” are required to report their GHG emissions.<sup>5</sup> The term “Reporting Entities” is defined to include “Covered Entities.”<sup>6</sup> The definition of a “Covered Entity” is complex and includes several different types of “stationary sources.” A “stationary source” is any integrated operation comprising any plant, building, structure, or stationary equipment, including support buildings and equipment, that is located within one or more contiguous or adjacent properties, is under common control of the same person or persons, and emits or may emit a GHG.<sup>7</sup> Emissions of each GHG are measured in terms of their carbon dioxide equivalent (“CDE”) quantity.<sup>8</sup>

The types of stationary sources included within the definition of Covered Entity are those that, in 2008 or any subsequent year: (1) produce for sale or distribution petroleum or coal-based liquid fuel, petroleum coke, or natural gas liquid the combustion of which would emit more than 25,000 tons of GHGs; (2) produce for sale or distribution more than 25,000 tons of fossil fuel-based carbon dioxide, nitrous oxide, perfluorocarbons, sulfur hexafluoride, or any other fluorinated gas that is a GHG, except nitrogen trifluoride; (3) emit 25,000 tons or more of nitrogen trifluoride; (4) are in industrial sectors for petroleum refining or for the production or manufacture of adipic acid, primary aluminum, ammonia, cement (excluding grinding), hydrochlorofluorocarbons, lime, nitric acid, petroleum phosphoric acid production, silicon carbon, soda ash, titanium dioxide, and coal-based liquid or gaseous fuel; (5) are in the chemical or petrochemical sector that produce acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol; (6) are in the chemical or petrochemical sector that produce a chemical or petroleum product if producing that product results in combustion and process emissions of 25,000 or more tons of GHGs; and (7) are in an industrial sector for food processing or for the production or manufacturing of ethanol, ferroalloy, fluorinated gas, glass, hydrogen, iron and steel, lead, pulp and paper, and zinc and that has emitted 25,000 tons or more of GHGs.<sup>9</sup>

The term Covered Entity also includes any entity or group of affiliated entities that import for sale or distribution in 2008 or any subsequent year: (1) petroleum or coal-based liquid fuel, petroleum coke, or natural gas liquid the combustion of which would emit more than 25,000 tons of GHGs; or (2) more than 25,000 tons of fossil fuel-based carbon dioxide, nitrous oxide, perfluorocarbons, sulfur hexafluoride, or any other fluorinated gas that is a GHG, except nitrogen trifluoride. The term Covered Entity also includes (1) any geological sequestration site; (2) any fossil fuel-fired combustion device or grouping of such devices that is an industrial source not specified in items three through seven above and that has emitted 25,000 or more tons of GHGs in 2008 or any subsequent year; and (3) any natural gas local distribution company that (or any group of affiliated distribution companies) in 2008 or any subsequent year delivers 460 million cubic feet or more of natural gas to customers that are not Covered Entities.<sup>10</sup>

Finally, the term Covered Entity includes an electricity source.<sup>11</sup> An electricity source is defined as a stationary source that contains one or more utility unit.<sup>12</sup> A utility unit is defined as a fossil-fuel fired combustion device that serves a generator that produces electricity for sale unless such combustion device (a) is part of an integrated cycle system that cogenerates steam and electricity during normal operation and that supplies one-third or less of its potential electric output capacity and 25 megawatts or less of electrical output for sale, or (b) combusts material of which more than 95% is municipal solid waste on a heat input basis.<sup>13</sup>

In addition to Covered Entities, a Reporting Entity also includes the following: (1) an entity that would be a Covered Entity if the threshold limits specified in the definition of Covered Entity were 10,000 tons instead of 25,000 tons (or 184 million cubic feet instead of 460 cubic feet for natural gas distributors); (2) any entity that emits a GHG or that produces, imports, manufactures or delivers material whose use may result in the emission of a GHG if the EPA determines that reporting by such entity will help achieve the purposes of the Bill; (3) any vehicle fleet with emissions of more than 25,000 tons of GHGs if the EPA determines that inclusion of such fleet would help achieve the purposes of the Bill; and (4) any entity that delivers electricity to an

energy-intensive facility in an industrial sector that meets certain energy or GHG intensity criteria.<sup>14</sup>

Reporting Entities must report the following: (1) GHG emissions; (2) the production, manufacture or importation of fuels and industrial gases the use of which results or may result in the emission of GHGs; (3) the delivery of natural gas the combustion of which results or may result in the emission of GHGs; (4) the capture and sequestration of GHGs; and (5) the delivery of electricity to industrial sources in energy-intensive industries.<sup>15</sup> Reporting Entities must report such information for calendar years 2007 through 2010 by March 31, 2011.<sup>16</sup> The EPA may modify this requirement to the extent that it is determined that Reporting Entities did not keep the data necessary to meet the requirement.<sup>17</sup> Beginning with calendar year 2011, each Reporting Entity must report information quarterly, not later than 60 days after the end of the quarter.<sup>18</sup>

**D. The Requirement To Hold Emission Allowances, Offsets Or Other Allowances.**

The Bill establishes the total quantity of Emission Allowances (“EAs”) for each calendar year starting in 2012.<sup>19</sup> For example, the quantity of EAs for 2012 is 4.627 billion, and the total number for 2050 is 1.035 billion.<sup>20</sup> The Bill also provides for the creation and distribution of Compensatory Allowances (“CAs”). CA are created and distributed for (1) the destruction of fluorinated gases where EAs or offsets were retired for the production or importation of such gases, and the gases were not required to be destroyed under any other provision of law; (2) the nonemissive use of petroleum or coal-based liquid or gaseous fuel, petroleum coke, or natural gas liquid or feedstock, if EAs or offsets were retired for the GHGs that would have been emitted from their combustion; and (3) the conversionary use of fluorinated gases in a manufacturing process if EAs or offsets were retired for the production or importation of such gases.<sup>21</sup>

Effective January 1, 2012, each Covered Entity is prohibited from emitting GHGs, or having GHG emissions attributed to it, in excess of its allowable emissions level.<sup>22</sup> A Covered Entity’s allowable emission level for each calendar year is the number of EAs, other allowances or offsets that it holds as of 12:01 a.m. on April 1.<sup>23</sup> A Covered Entity must hold a quantity of EAs, offsets or other allowances as least as great as set forth in the paragraphs below in order to be in compliance.

An electricity source must hold one EA, offset or other allowance for each ton of GHGs emitted, excluding emissions from (1) petroleum or coal-based liquid fuel; (2) natural gas liquid; (3) renewable biomass or gas derived from renewable biomass; and (4) petroleum coke or gas derived from petroleum coke.<sup>24</sup> Fuel producers and importers must hold one EA, offset or other allowance for each ton of GHGs that would be emitted from the combustion of any petroleum or coal-based liquid fuel, petroleum coke, or natural gas liquid produced or imported for sale or distribution.<sup>25</sup> Industrial gas producers and importers must hold one EA, offset or other allowance for each GHG ton of fossil fuel-based carbon dioxide, nitrous oxide, or any other fluorinated gas that is a GHG (except nitrogen trifluoride) produced or imported for sale or distribution or released as a fugitive emission in the production of fluorinated gas.<sup>26</sup> Nitrogen trifluoride sources must hold one EA, offset or other allowance for each ton of GHGs emitted.<sup>27</sup>

Geological sequestration sites must hold one EA, offset or other allowance for each ton of GHGs emitted.<sup>28</sup>

Stationary sources other than those mentioned in the preceding paragraph must hold one EA, offset or other allowance for each ton of GHGs emitted, excluding emissions from (1) petroleum or coal-based liquid fuel; (2) natural gas liquid; (3) renewable biomass or gas derived from renewable biomass; (4) petroleum coke or gas derived from petroleum coke; and (5) fluorinated gas that is a GHG, except for nitrogen trifluoride.<sup>29</sup> Industrial fossil fuel-fired combustion devices must hold one EA, offset or other allowance for each ton of GHGs emitted, excluding emissions from (1) petroleum or coal-based liquid fuel; (2) natural gas liquid; (3) renewable biomass or gas derived from renewable biomass; and (4) petroleum coke or gas derived from petroleum coke.<sup>30</sup> Natural gas local distribution companies must hold one EA, offset or other allowance for each ton of GHGs that would be emitted from the combustion of natural gas delivered to customers that are not Covered Entities.<sup>31</sup>

The requirements to hold EAs that apply to electricity sources, fuel producers/importers, industrial gas producers/importers and geologic sequestration sites go into effect in 2012.<sup>32</sup> The requirements that apply to natural gas local distribution companies go into effect in 2016.<sup>33</sup> The requirements go into effect for all other Covered Entities in 2014.<sup>34</sup>

A Covered Entity may use domestic and international offset credits, in addition to EAs, to demonstrate compliance.<sup>35</sup> Collectively, Covered Entities may use offset credits to cover a maximum of 2 billion tons of GHG emissions annually.<sup>36</sup> The limit on the use of offset credits will be divided pro rata among the Covered Entities such that a Covered Entity will be allowed to satisfy a certain percentage of its total requirement with offset credits.<sup>37</sup> That percentage will be determined by dividing 2 billion by the sum of 2 billion plus the total number of EAs established for the previous year, multiplied by 100.<sup>38</sup> Not more than half of that percentage may be satisfied by using domestic offset credits, and not more than half may be satisfied by using international offset credits.<sup>39</sup> Each offset credit is equal to one EA, except that after 2018 it will take 1.25 international offset credits to equal one EA.<sup>40</sup> A Covered Entity may also demonstrate compliance by holding CAs and International EAs.<sup>41</sup> An International EA is defined as a tradable authorization to emit one ton of GHG that is issued by a national or supranational foreign government pursuant to a qualifying international program designated by the EPA.<sup>42</sup>

It is a violation of the Bill for a Covered Entity to emit GHGs, and have GHG emissions attributed to it, in excess of its allowable amount.<sup>43</sup> Each ton of excess GHG emissions is a separate violation.<sup>44</sup> A Covered Entity will be liable for a civil penalty for excess emissions in the amount of twice the fair market value of one EA times the number of excess tons.<sup>45</sup> In addition, the Covered Entity must offset the excess the following year with a sufficient number of EAs.<sup>46</sup>

#### **E. Transfers, Banking and Borrowing Of EAs.**

The lawful holder of an EA, CA or offset credit may sell, exchange, transfer, hold for compliance or request that the EPA retire the EA, CA or offset credit.<sup>47</sup> The privilege of purchasing, holding, exchanging, selling, transferring and requesting retirement of EAs, CAs and

offset credits is not limited to owners and operators of Covered Entities.<sup>48</sup> An EA may be used in the year of its issuance or it may be banked for use in the future.<sup>49</sup> A Covered Entity may borrow without interest EAs from one year in the future to satisfy current obligations.<sup>50</sup> A Covered Entity may borrow with interest EAs from up to five years in the future to satisfy up to 15% of its current obligations.<sup>51</sup>

**F. Strategic Reserve Account.**

Once each quarter, the EPA is required to auction strategic reserve allowances.<sup>52</sup> Only Covered Entities are allowed to make purchases at these auctions.<sup>53</sup> Within two years of passage of the Bill, the EPA will fill the strategic reserve initially by depositing in the strategic reserve account 1% of the EAs established for years 2012 through 2019, 2% of EAs established for 2020 through 2029, and 3% of EAs established for 2030 through 2050.<sup>54</sup> In addition, at the end of each calendar year the EPA will transfer to the strategic reserve account each EA that was offered for sale but not sold.<sup>55</sup> At each strategic reserve auction, EAs will be offered for sale beginning at the minimum strategic reserve auction price. For 2012, this price is \$28 (in constant 2009 dollars).<sup>56</sup> For auctions held in 2013 and 2014, the minimum strategic reserve auction price will be the strategic reserve auction price for the previous year increased by 5% plus the rate of inflation.<sup>57</sup> Thereafter, the minimum strategic reserve auction price will be 60% above a rolling thirty-six month average of the daily closing price for that year's EAs.<sup>58</sup>

There is a limit on the number of EAs that may be sold from the strategic reserve account annually. For 2012 to 2016, the limit is 5% of the total EAs established for the year.<sup>59</sup> For 2017 and thereafter, the limit is 10% of the total EAs established for the year.<sup>60</sup> There is also a limit on the purchases of EAs at strategic reserve auctions. For 2012, a Covered Entity may purchase EAs equal to 20% of the Covered Entity's GHG emissions in 2011.<sup>61</sup> Thereafter, a Covered Entity may purchase EAs equal to twenty percent of the Covered Entity's GHG emissions during the most recent year for which allowances or credits were retired.<sup>62</sup>

The proceeds from the strategic reserve auction will be placed in the strategic reserve fund.<sup>63</sup> The proceeds will then be used to purchase international offset credits that had been issued by the EPA for reduced deforestation activities.<sup>64</sup> The EPA will then retire those international offset credits and issue EAs equal to 80% of the number of international offset credits retired.<sup>65</sup> The EAs will be deposited into the strategic reserve to the extent necessary to fill the strategic reserve to its original size.<sup>66</sup>

**G. Clean Air Act Title V Permits.**

The provisions of the greenhouse gas cap and trade program will be implemented via the Title V permit for those stationary sources that are subject to Title V of the Clean Air Act.<sup>67</sup> In such instances, the Title V permit for the facility will require the facility to hold emission allowances or offset credits at least equal to the total amount of its combined emissions and attributions of GHGs.<sup>68</sup>

## H. Offset Credits.

The Bill establishes an Offsets Integrity Advisory Board that would make recommendations to the EPA for use in promulgating regulations governing the offset program.<sup>69</sup> Board members would be appointed by the EPA.<sup>70</sup> The EPA is required to promulgate regulations establishing a program for the issuance of offset credits. The issuance of offset credits is authorized with respect to qualifying projects.<sup>71</sup> Offset credits issued must represent verifiable and additional GHG emission reductions, avoidance or sequestration.<sup>72</sup> Offset credits may only be issued for sequestration projects where the GHG reductions are permanent.<sup>73</sup>

The EPA will develop a list of the types of projects eligible to generate offset credits, including international offset credits.<sup>74</sup> In developing the list, the EPA is to take into consideration the recommendations of the Advisory Board.<sup>75</sup> The EPA must establish the initial eligibility list within one year after the date of enactment of the Bill.<sup>76</sup> In developing the initial list, priority for consideration must be given to those project types that are recommended by the Advisory Board and for which there are well developed methodologies that would accomplish the objectives of the Bill.<sup>77</sup> Any person may petition the EPA to add or remove a project type from the list.<sup>78</sup>

As part of the offset regulations, the EPA must establish for each type of offset project a standardized method for determining the additionality of GHG emission reductions or avoidance achieved by the offset project. At a minimum, the methodology must ensure that emission reductions are considered to be additional, and hence credited, only to the extent that they (1) are not required by any law, regulation or consent order; (2) were not commenced prior to January 1, 2009 (unless registered or readily reversible); (3) are not receiving support under the Bill or pursuant to the Clean Energy and Security Act of 2009; and (4) exceed the activity baseline.<sup>79</sup> The activity baseline is a conservative estimate of the business as usual performance for the relevant type of activity.<sup>80</sup>

The EPA will also establish for each type of offset project a standardized method for quantifying the extent to which GHG emission reductions or avoidance exceed the activity baseline, as well as protocols for monitoring and accounting for uncertainty.<sup>81</sup> Further, the EPA will establish a standardized methodology for accounting for potential leakage from each project type.<sup>82</sup> For each type of sequestration project, the EPA will establish requirements to account for and address reversals.<sup>83</sup> Finally, the EPA will specify a crediting period for each offset project type, which will be no less than five and no more than ten years for any project type other than sequestration.<sup>84</sup> An offset project will be eligible to generate offset credits only during the crediting period.<sup>85</sup> A project developer may petition for a new crediting period to commence after termination of the original period.<sup>86</sup>

An offset project developer must submit an offset project approval petition to the EPA in order to determine whether the project is eligible for the issuance of offset credits.<sup>87</sup> The EPA must approve or deny the petition in writing within ninety days of receipt.<sup>88</sup> The EPA will establish requirements for the verification of the quantity of emission reductions or avoidance, or greenhouse gas sequestration, resulting from a project.<sup>89</sup> The offset project developer will be required to submit a verification report prepared by a third party accredited verifier.<sup>90</sup> Upon receiving the verification report, the EPA will issue one offset credit for each ton of carbon

dioxide equivalent GHG that has been reduced, avoided or sequestered during the period covered by the verification report.<sup>91</sup>

In addition, the EPA will issue offset credits for emissions reduced, avoided or sequestered under an offset project that was started after January 1, 2001 pursuant to which a credit was issued under a regulatory or voluntary offset program that the EPA determines meets certain criteria.<sup>92</sup> Among the criteria are the that the program must have been established under state or tribal law or regulation prior to January 1, 2009, or must have been approved by the EPA.<sup>93</sup> Offset credits will only be issued for reductions, avoidances or sequestrations that occur after January 1, 2009, and only until the date that is the earlier of three years after enactment of the Bill or the effective date of federal offset program regulations required to be adopted pursuant to the bill.<sup>94</sup>

### **I. International Offset Credits.**

The Administrator may issue international offset credits based on activities that reduce, avoid or sequester GHG emissions in a developing country.<sup>95</sup> A “developing country” is defined as “a country eligible to receive official development assistance according to the income guidelines of the Development Assistance Committee of the Organization for Economic Cooperation and Development.”<sup>96</sup> International offset credits may be issued only if the United States is a party to an agreement or arrangement that includes the country in which the project is located, and the agreement or arrangement ensures that all of the offset requirements contained in Part D of the Bill apply to the issuance of international offset credits.<sup>97</sup>

In order to minimize leakage, the EPA, together with the Secretary of State and the Administrator of the Agency for International Development, must identify those sectors in a country for which the issuance of international offset credits on a sectoral basis, as opposed to a project basis, is appropriate, and credits must then be issued on a sectoral basis for those identified sectors.<sup>98</sup> There are various factors that are to be taken into consideration in making this determination, including: (1) the country’s gross domestic product; (2) the country’s total GHG emissions; (3) whether the sector would be included in the cap if it were in the United States; and (4) the risk of leakage if credits were issued on a project basis instead of a sector basis.<sup>99</sup>

Further, the EPA, in consultation with the Secretary of State, may issue international offset credits in exchange for foreign offset credits issued by an international body pursuant to the United Nations Framework Convention on Climate Change, or pursuant to a protocol to that Convention or to a treaty that succeeds the Convention.<sup>100</sup> Before issuing such international offset credits, there must be a determination that the international body has implemented requirements for the offset project that provide equal or greater assurance of integrity than is provided by the federal cap and trade law.<sup>101</sup> The EPA must inform the international body of the issuance of the international offset credits in exchange for the foreign offset credits, and must seek to ensure that such body disqualify the foreign offset credits from further use.<sup>102</sup>

Among appropriate international offset credits are those issued for emissions reductions from reduced deforestation.<sup>103</sup> In order to be eligible, the reduced deforestation activity must occur in a developing country listed by the EPA as approved for such projects.<sup>104</sup> The quantity of credits

issued will be determined by comparing the national emissions from deforestation to a national deforestation baseline.<sup>105</sup> The emissions reduction must occur before the issuance of the credits, and must be demonstrated using appropriate methodologies.<sup>106</sup> The EPA will make appropriate adjustments to the offset total to account for uncertainty.<sup>107</sup> Further, the activity must be done (1) in accordance with widely accepted and environmentally sustainable forest management practices; (2) to promote or restore native forest systems and ecosystems where practicable, and to avoid the introduction of nonnative species; and (3) with the participation of local communities, and with the equitable sharing of profits and benefits derived from the issuance of credits with such communities.<sup>108</sup>

## **J. Supplemental Emissions Reductions From Reduced Deforestation.**

As explained earlier, the bill sets forth the total number of emission allowances available each year. A certain percentage of these allowances are to be set aside each year for the International Deforestation Reduction Program. That percentage is 5% for years 2012 through 2025, 3% for years 2026 through 2030, and 2% for years 2031 through 2050.<sup>109</sup> Within two years after the enactment of the bill, the EPA, in consultation with the Administrator of the United States Agency for International Development, is directed to promulgate regulations establishing a program to use the set aside emission allowances to achieve the reduction of GHG emissions from deforestation in approved developing countries.<sup>110</sup>

Selected activities may be supported by the distribution of emission allowances to an eligible country, private group, public group or international fund.<sup>111</sup> Among the activities that may be supported are (1) national or subnational deforestation reduction activities; (2) activities to monitor, measure and verify deforestation and avoided deforestation; (3) development of monitoring, measurement and verification capacities; (4) leakage protection activities; (5) enforcement of requirements for reduced deforestation or forest conservation; (6) development of governing structures to reduce deforestation and illegal logging; (7) efforts to combat illegal logging and increase enforcement cooperation; (8) providing incentives for policy reforms to achieve objectives; and (9) monitoring and evaluating the results of the activities conducted.<sup>112</sup>

## **II. Title III – Reducing Global Warming Pollution, Subtitle B – Disposition of Allowances.**

### **A. Disposition of Allowances In General.**

The following amount of EAs are to be allocated in the following manner: (1) for the benefit of electricity consumers, 2012-13 – 43.75%, 2014-15 – 38.89%, 2016-25 – 35%, 2026 – 28%, 2027 – 21%, 2028 – 14%, and 2029 – 7%; (2) for the benefit of natural gas consumers, 2016-25 – 9%, 2026 – 7.2%, 2027 – 5.4%, 2028 – 3.6%, and 2029 – 1.8%; (3) for the benefit of home heating oil/propane consumers, 2012-13 – 1.875%, 2014-15 – 1.67%, 2016-25 – 1.5%, 2026 – 1.2%, 2027 - .9%, 2028 - .6%, and 2029 - .3%; (4) to energy-intensive, trade-exposed entities, 2012-13 – up to 2%, 2014 – up to 15%, 2015-50 – a declining % each year based on a formula; (5) for the deployment of carbon capture and sequestration technology, 2014-17 – 1.75%, 2018-19 – 4.75%, and 2020-50 – 5%; (6) to invest in energy efficiency and renewable energy, 2012-15 – 10%, 2016-17 – 7%, 2018-21 – 6%, 2022-25 – 1.5%, 2026-50 – 5% (plus an additional 3.55% for

years 2026-29 distributed in 2022-25); (7) for Clean Energy Innovation Centers, 2012-50 – 1.5%; (8) for the development of clean vehicles, 2012-17 – 3%, 2018-25 – 1%; (9) to domestic refiners, 2014-26 – 2%; (10) for domestic adaptation, 2012-21 - .9%, 2022-26 – 1.9%, 2027-50 – 3.9%; (11) for wildlife/natural resources, 2012-21 - .385%, 2022-26 - .77%, 2027-50 – 1.54%; (12) for international adaptation, 2012-21 – 1%, 2022-26 – 2%, 2027-50 - 4%; and (13) for international clean technology development, 2012-21 – 1%, 2022-26 – 2%, 2027-50 – 4%.<sup>113</sup>

In addition, each year the EPA is to auction the following amount of EAs and use the proceeds for the following purposes: (1) 15% to fund a program to benefit low income consumers; (2) .5% for 2012 to 2021 and 1% for 2022 to 2050 for workers; (3) .1% for 2012 and thereafter for the Climate Change Health Production and Promotion Fund; and (4) .615% for 2012 to 2021, 1.23% for 2022 to 2026 and 2.46% from 2027 to 2050 for the Natural Resources Climate Change Adaptation Fund.<sup>114</sup> The EPA is to make future year allowances available by auctioning them as follows: (1) in each of calendar years 2014-19, 700 million allowances with vintage years 12 to 17 years after the year of the auction; (2) in each of calendar years 2020-25, 500 million allowances with vintage years 12 to 17 years after the year of the auction; and (3) in each of calendar years 2026-30, 300 million allowances with vintage years 12 to 17 years after the year of the auction.<sup>115</sup>

For years 2012 through 2025, any allowances not designated for distribution as stated above, except for the early auction of future allowances, shall be auctioned by the Administrator and the proceeds deposited in the United States Treasury for deficit reduction.<sup>116</sup> For years 2026 through 2050, such allowances will be auctioned and the proceeds deposited into the Climate Change Consumer Refund Account.<sup>117</sup> For years 2012 through 2020, the proceeds from the early auction of future allowances will be deposited in the United States Treasury for deficit reduction.<sup>118</sup> For years 2021 through 2050, the proceeds will be deposited in the Climate Change Consumer Refund Account.<sup>119</sup> Each year after the deposits are made to the Climate Change Consumer Refund Account, the Treasury Secretary will provide tax refunds on a per capita basis to each household in the United States that will collectively equal the amount deposited in the account.<sup>120</sup>

## **B. Disposition of Allowances for Electricity Consumers.**

The amount of EAs allocated for the benefit of electricity consumers will be distributed to “electricity local distribution companies,” “merchant coal generators,” and “long-term contract generators.” An “electricity local distribution company” is an electric utility that has an obligation to deliver electricity to retail consumers, and the retail rates of which are regulated.<sup>121</sup> A “merchant coal generator” is an electric generation facility that is a Covered Entity that (1) derives at least 85% of its heat input from coal, petroleum coke, or a combination of these fuels; (2) is not owned by a federal, state or regional agency or power authority; and (3) generates electricity for sale to others, provided that such sales are not subject to retail rate regulation by a state public utility commission, or self-regulation of rates by a local government, state agency, or electric cooperative.<sup>122</sup>

A “long-term contract generator” is a qualifying small power production or cogeneration facility, or a new independent power production facility, that is a Covered Entity that is (1) as of the

commencement of operation, a facility consisting of one or more utility units with total installed net output capacity of no more than 130% of the facility's total planned net output capacity; (2) as of the date of enactment of the bill, a facility with a power sales agreement executed before January 1, 2007, that governs the facility's electric sales and provides for sales at a price that does not allow for recovery of the costs of compliance with the limitation of greenhouse gas emissions under the Bill; and (3) not a merchant coal generator.<sup>123</sup>

Fifty percent of the available EAs to be allocated to electricity local distribution companies will be distributed among individual utilities based each utility's annual average base period carbon dioxide emissions from electricity generation.<sup>124</sup> The other 50% will be distributed among the individual utilities based on each utility's annual average base period retail electricity deliveries.<sup>125</sup> Allowances distributed to utilities must be used exclusively for the benefit of retail ratepayers of the utility.<sup>126</sup> With regard to "long-term contract generators," the amount distributed to each will be equal to the number of tons of carbon dioxide emitted the preceding year as a result of a qualifying long-term power purchase agreement.<sup>127</sup>

With regard to merchant coal generators, the amount of EAs distributed to each will be equal to the product of .5 times the qualifying emissions for the generator for the preceding year times the phase-down factor for the preceding year.<sup>128</sup> The qualifying emissions for a year will be the product of the number of megawatt hours of electricity generated by the generator for the given year times the average carbon dioxide emissions per megawatt hour generated by such generator for 2006 through 2008. In making the foregoing calculation, the number of megawatt hours is reduced in proportion to the portion of such generator's carbon dioxide emissions that are either captured and sequestered, or attributable to the combustion of renewable biomass such that the generator is not required to hold EAs for such emissions.<sup>129</sup> The phase-down factor will correspond to the overall decline in the number of EAs allocated to the electricity sector through the years.<sup>130</sup> In no event will the number of EAs distributed to merchant coal generators exceed 10% of the total EAs allocated to the electricity sector.<sup>131</sup>

### **C. Disposition of Allowances for Natural Gas Consumers.**

The amount of EAs allocated for the benefit of natural gas consumers will be distributed to natural gas local distribution companies. For the first few years, the amount will be distributed ratably to each company based on the company's annual average natural gas deliveries for the base period.<sup>132</sup> The formula is then updated periodically to distribute EAs ratably based on the product of each company's average annual natural gas deliveries per customer during the base period times the number of customers of such company in the most recent year in which the formula is updated.<sup>133</sup> EAs distributed to a company are to be used exclusively for the benefit of retail ratepayers of such company.<sup>134</sup> Further, the value of no less than one-third of the EAs distributed to a company in any year must be used for cost-effective energy efficiency programs for natural gas consumers.<sup>135</sup>

### **D. Disposition of Allowances for Home Heating Oil and Propane Consumers.**

The amount of EAs allocated for the benefit of home heating oil and propane consumers will be distributed annually to the states.<sup>136</sup> The amount distributed to each state will be based on the

ratio of the carbon content of home heating oil and propane sold to consumers within the state in the preceding year to the carbon content of home heating oil and propane sold to consumers in the United States in the preceding year.<sup>137</sup> States must use the EAs exclusively for the benefit of consumers of home heating oil and propane in the form of (1) cost efficiency programs for consumers that use home heating oil or propane; or (2) rebates or other direct financial assistance programs for consumers that use home heating oil or propane.<sup>138</sup>

**E. Disposition of Allowances to Refineries.**

EAs are to be allocated each year to individual oil refineries in a manner that promotes energy efficiency and a reduction of GHG emissions at such facilities.<sup>139</sup> The EPA will calculate an individual allocation factor each year for each refinery based on the product of the intensity factor for the refinery multiplied by the production factor for the refinery.<sup>140</sup> The “intensity factor” is the intensity of the petroleum refining sector divided by the intensity of the refinery.<sup>141</sup> The term “intensity” refers to the tons of GHG emissions per unit of output in a given year.<sup>142</sup> “Emissions” include direct emissions from fuel combustion, process emissions, and indirect emissions from the generation of electricity used to produce the output.<sup>143</sup> The “production factor” is the output of the refinery divided by the output of the petroleum refining sector.<sup>144</sup> After calculating an individual allocation factor for each refinery, the EPA will calculate a total allocation factor for the year based on the sum of all individual allocation factors.<sup>145</sup> The number of EAs provided to each refinery will be determined by dividing the individual allocation factor by the total allocation factor and multiplying the result by the total number of EAs allocated to the program for the year.<sup>146</sup>

**F. Exchange of State-Issued Allowances.**

The EPA is directed to promulgate regulations to allow persons holding emission allowances issued by the State of California, the Regional Greenhouse Gas Initiative or the Western Climate Initiative before December 31, 2011 to exchange those emission allowances for EAs issued under the Bill.<sup>147</sup> A person exchanging state allowances will receive EAs in an amount that is sufficient to compensate for the cost of obtaining and holding the state allowances.<sup>148</sup> The cost of obtaining state allowances will be the average auction price for the state allowance in the year in which it was issued.<sup>149</sup> The regulations will establish a deadline for exchanging state allowances. EAs disbursed in exchange for state allowances will be deducted from the EAs to be auctioned.<sup>150</sup>

**G. Auction Procedures.**

Auctions be held four times per year at regular intervals, with the first auction to be held no later than March 20, 2011.<sup>151</sup> Auctions will be open to any persons.<sup>152</sup> Each bidder in an auction must disclose the person or entity sponsoring or benefiting from the bidder’s participation in the auction.<sup>153</sup> No persons directly or in concert with others may purchase more than 5% of the allowances offered for sale at any quarterly auction.<sup>154</sup> Despite the foregoing, the EPA may revise the auction regulations at any time if it is determined that an alternative auction design will be more effective, and the revised regulations would not have to meet the requirements mentioned above.<sup>155</sup> The minimum reserve auction price for allowances for 2012 will be ten

dollars.<sup>156</sup> For subsequent years, the minimum reserve auction price for the current year will be the minimum reserve auction price for the previous year increased by five percent plus the rate of inflation.<sup>157</sup>

### **III. Title III – Reducing Global Warming Pollution, Subtitle C - Additional Greenhouse Gas Standards.**

#### **A. Hydrofluorocarbon Cap and Trade Regulation.**

The Bill creates a category of hydrofluorocarbons referred to as Class Two, Group Two substances.<sup>158</sup> Effective January 1, 2012, it would be unlawful for any person to produce such substances, import such substances, or import any product containing such substances without holding one Consumption Allowance (“CA”) or one Destruction Offset Credit for each carbon dioxide equivalent ton of such substance.<sup>159</sup> The Bill sets up a declining cap for the number of CAs available for distribution each year.<sup>160</sup> CAs are distributed in part by auction and in part by sale to producers and importers of Class Two, Group Two hydrofluorocarbons.<sup>161</sup> The percentage of CAs distributed by auction increases each year until it reaches ninety percent in 2020.<sup>162</sup> Banking of allowances is allowed.<sup>163</sup> Auctions are to be held once a year, with the first auction to be held no later than October 31, 2011.<sup>164</sup> There is a limit on the number of CAs that may be bid on or purchased by an eligible person.<sup>165</sup>

Offset credits will be issued for the destruction of chlorofluorocarbons in the United States.<sup>166</sup> Credits will be issued at .8 times the number of tons of GHG emissions reduction achieved by the destruction.<sup>167</sup> No Destruction Offset credits are to be issued for the destruction of a Class Two, Group Two substance.<sup>168</sup> Further, each person who produced, imports or exports a Class Two, Group Two substance, or who imports a product containing a Class Two, Group Two substance, must file a report with the EPA setting forth the carbon dioxide equivalent amount of such substance produced, imported or exported, as well as the amount contained in products imported by such person.<sup>169</sup> Amounts received by the sale or auction of allowances will be deposited into the Stratospheric Ozone and Climate Protection Fund to be used to establish a program to incentivize the recovery, recycling, and reclamation of any Class Two substance in order to reduce emissions of such substances.<sup>170</sup>

#### **B. State Programs**

The Bill provides that no state or political subdivision may implement or enforce a cap and trade program that covers any capped emissions emitted during the years 2012 through 2017.<sup>171</sup> A “cap and trade” program does not include a target or limit on GHG emissions that is implemented other than through the issuance and surrender of a limited number of tradable instruments in the nature of emission allowances.<sup>172</sup> It also expressly does not include fleet-wide motor vehicle emission requirements that allow greater emissions with increased vehicle production, or requirements that fuels, or other products, meet an average pollution emission rate or lifecycle ghg standard.<sup>173</sup>

**IV. Title IV – Transitioning to a Clean Energy Economy, Subtitle A – Ensuring Real Reductions In Industrial Emissions.**

**A. Emission Allowance Rebate Program.**

The Bill includes an Emission Allowance Rebate Program to offset the costs of compliance for entities in certain industrial sectors. The EPA will determine what entities are eligible based on a consideration of the energy intensity and the trade intensity of an industrial sector or subsector. Industrial sectors are presumed eligible for the program if they meet a 5% energy or GHG intensity threshold and a 15% trade intensity threshold.<sup>174</sup> Alternatively, sectors are presumed eligible if they meet a 20% energy or GHG intensity threshold. Rebates of emission allowances are distributed to eligible facilities to compensate for direct and indirect emissions costs.<sup>175</sup> The Emission Allowance Rebate Program is scheduled to be phased out beginning in 2025 unless a determination is made that other countries have not yet taken substantial action to reduce GHG emissions and leakage concerns remain.<sup>176</sup>

**B. International Reserve Allowance Program.**

The Bill requires that the President submit a report to Congress by January 1, 2018 regarding the effectiveness of the Emission Allowance Rebate Program in mitigating increased emissions in other countries resulting from increased costs of compliance in the United States.<sup>177</sup> By June 30, 2022, and every four years thereafter, the President must determine whether more than 70% of global output in those industrial sectors eligible for the Emission Allowance Rebate Program is produced in countries that meet certain criteria.<sup>178</sup> If 70% or less is produced in such countries, then the President must continue the Emission Allowance Rebate Program for that sector, institute the International Reserve Allowance Program for that sector, or both.<sup>179</sup>

Under an International Reserve Allowance Program, international reserve allowances will be offered for sale to importers.<sup>180</sup> The submission of a certain amount of allowances would be required as a condition for the importation into the United States of a primary product of the covered industrial sector.<sup>181</sup> The term “primary product” is defined to mean a product manufactured by an eligible industrial sector that is (1) iron, steel, steel mill products (including pipe and tube), aluminum, cement, glass (including flat, container, and specialty glass and fiberglass), pulp, paper, chemicals, or industrial ceramics; or (2) any other manufactured product that is sold in bulk for purposes of further manufacture or inclusion in a finished product.<sup>182</sup> There would be an exemption for primary products produced in (1) foreign countries that the United States has identified as among the least developed of developing countries; or (2) foreign countries that the President has determined to be responsible for less than .5 % of total global GHG emissions.<sup>183</sup>

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<sup>2</sup> American Clean Energy and Security Act, HR 2453, §311, adding §703(a) to the Clean Air Act.

<sup>3</sup> *Id.*, adding §711(a) to the Clean Air Act.

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- <sup>4</sup> *Id.*, adding §711(c) to the Clean Air Act.
- <sup>5</sup> *Id.*, adding §713(b)(1) to the Clean Air Act.
- <sup>6</sup> *Id.*, adding §713(a)(2) to the Clean Air Act.
- <sup>7</sup> American Clean Energy and Security Act, HR 2453, §312, adding §700(46) to the Clean Air Act.
- <sup>8</sup> American Clean Energy and Security Act, HR 2453, §311, adding §712(a) to the Clean Air Act.
- <sup>9</sup> American Clean Energy and Security Act, HR 2453, §312, adding §700(13) to the Clean Air Act.
- <sup>10</sup> *Id.*
- <sup>11</sup> *Id.*, adding §700(13)(A),(C) to the Clean Air Act.
- <sup>12</sup> *Id.*, adding §700(18) to the Clean Air Act.
- <sup>13</sup> *Id.*, adding §700(50) to the Clean Air Act.
- <sup>14</sup> American Clean Energy and Security Act, HR 2453, §311, adding §713(a)(2) to the Clean Air Act.
- <sup>15</sup> *Id.*, adding §713(b)(1)(A) to the Clean Air Act.
- <sup>16</sup> *Id.*, adding 713(b)(2)(A) to the Clean Air Act.
- <sup>17</sup> *Id.*
- <sup>18</sup> *Id.*, adding §713(b)(2)(A) to the Clean Air Act.
- <sup>19</sup> *Id.*, adding §721(a) to the Clean Air Act.
- <sup>20</sup> *Id.*, adding §721(e) to the Clean Air Act..
- <sup>21</sup> *Id.*, adding §721(f)(1) to the Clean Air Act..
- <sup>22</sup> *Id.*, adding §722(a) to the Clean Air Act..
- <sup>23</sup> *Id.*
- <sup>24</sup> *Id.*, adding §722(b)(1) to the Clean Air Act.
- <sup>25</sup> *Id.*, adding §722(b)(2) to the Clean Air Act..
- <sup>26</sup> *Id.*, adding §722(b)(3) to the Clean Air Act..
- <sup>27</sup> *Id.*, adding §722(b)(4) to the Clean Air Act.
- <sup>28</sup> *Id.*, adding §722(b)(5) to the Clean Air Act.
- <sup>29</sup> *Id.*, adding §722(b)(6) to the Clean Air Act..
- <sup>30</sup> *Id.*, adding §722(b)(7) to the Clean Air Act.
- <sup>31</sup> *Id.*, adding §722(b)(8) to the Clean Air Act..

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- <sup>32</sup> *Id.*, adding §722(c) to the Clean Air Act.
- <sup>33</sup> *Id.*, adding §722(c)(2) to the Clean Air Act..
- <sup>34</sup> *Id.*, adding §722(c) to the Clean Air Act.
- <sup>35</sup> *Id.*, adding §722(d)(1) to the Clean Air Act.
- <sup>36</sup> *Id.*, adding §722(d)(1)(a) to the Clean Air Act.
- <sup>37</sup> *Id.*
- <sup>38</sup> *Id.*, adding §722(d)(1)(b) to the Clean Air Act.
- <sup>39</sup> *Id.*, adding §722(d)(1)(A) to the Clean Air Act.
- <sup>40</sup> *Id.*, adding §722(d)(1)(D) to the Clean Air Act.
- <sup>41</sup> *Id.*, adding §722(d)(2),(3) to the Clean Air Act.
- <sup>42</sup> American Clean Energy and Security Act, HR 2453, §312, adding §700(33) to the Clean Air Act.
- <sup>43</sup> American Clean Energy and Security Act, HR 2453, §311, adding §723(a) to the Clean Air Act.
- <sup>44</sup> *Id.*
- <sup>45</sup> *Id.*, adding §723(b) to the Clean Air Act.
- <sup>46</sup> *Id.*, adding §723(c) to the Clean Air Act.
- <sup>47</sup> *Id.*, adding §724(a) to the Clean Air Act.
- <sup>48</sup> *Id.*, adding §724(b) to the Clean Air Act.
- <sup>49</sup> *Id.*, adding §725(a) to the Clean Air Act.
- <sup>50</sup> *Id.*, adding §725(c)(1) to the Clean Air Act.
- <sup>51</sup> *Id.*, adding §725(c)(2) to the Clean Air Act.
- <sup>52</sup> *Id.*, adding §726(a)(1) to the Clean Air Act.
- <sup>53</sup> *Id.*, adding §726(a)(2) to the Clean Air Act.
- <sup>54</sup> *Id.*, adding §726(b)(1) to the Clean Air Act.
- <sup>55</sup> *Id.*, adding §726(b)(2) to the Clean Air Act.
- <sup>56</sup> *Id.*, adding §726(c)(2) to the Clean Air Act.
- <sup>57</sup> *Id.*
- <sup>58</sup> *Id.*, adding §726(c)(3) to the Clean Air Act.
- <sup>59</sup> *Id.*, adding §726(d)(1) to the Clean Air Act.

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<sup>60</sup> *Id.*, adding §726(d)(2) to the Clean Air Act.

<sup>61</sup> *Id.*, adding §726(e)(2) to the Clean Air Act.

<sup>62</sup> *Id.*, adding §726(e)(1) to the Clean Air Act.

<sup>63</sup> *Id.*, adding §726(g)(1) to the Clean Air Act.

<sup>64</sup> *Id.*, adding §726(g)(2) to the Clean Air Act.

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*, adding §726(g)(3) to the Clean Air Act.

<sup>67</sup> *Id.*, adding §727(a) to the Clean Air Act.

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*, adding §731(a) to the Clean Air Act.

<sup>70</sup> *Id.*, adding §731(b) to the Clean Air Act.

<sup>71</sup> *Id.*, adding §732(b)(1) to the Clean Air Act.

<sup>72</sup> *Id.*, adding §732(b)(2) to the Clean Air Act.

<sup>73</sup> *Id.*, adding §732(b)(3) to the Clean Air Act.

<sup>74</sup> *Id.*, adding §733(a)(1) to the Clean Air Act.

<sup>75</sup> *Id.*, adding §733(a)(2) to the Clean Air Act.

<sup>76</sup> *Id.*, adding §733(a)(3) to the Clean Air Act.

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*, adding §733(c) to the Clean Air Act.

<sup>79</sup> *Id.*, adding §734(a)(1) to the Clean Air Act.

<sup>80</sup> *Id.*, adding §734(a)(2) to the Clean Air Act.

<sup>81</sup> *Id.*, adding §734(a)(3) to the Clean Air Act.

<sup>82</sup> *Id.*, adding §734(a)(4) to the Clean Air Act.

<sup>83</sup> *Id.*, adding §734(b) to the Clean Air Act.

<sup>84</sup> *Id.*, adding §734(c)(1),(2) to the Clean Air Act.

<sup>85</sup> *Id.*, adding §734(c)(3) to the Clean Air Act.

<sup>86</sup> *Id.*, adding §734(c)(4) to the Clean Air Act.

<sup>87</sup> *Id.*, adding §735(a) to the Clean Air Act.

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- <sup>88</sup> *Id.*, adding §735(c) to the Clean Air Act.
- <sup>89</sup> *Id.*, adding §736(a) to the Clean Air Act.
- <sup>90</sup> *Id.*, adding §736(c) to the Clean Air Act.
- <sup>91</sup> *Id.*, adding §737(a),(b) to the Clean Air Act.
- <sup>92</sup> *Id.*, adding §740(a) to the Clean Air Act.
- <sup>93</sup> *Id.*
- <sup>94</sup> *Id.*, adding §740(c) to the Clean Air Act.
- <sup>95</sup> *Id.*, adding §743(a) to the Clean Air Act.
- <sup>96</sup> American Clean Energy and Security Act, HR 2453, §312, adding §700(16) to the Clean Air Act.
- <sup>97</sup> American Clean Energy and Security Act, HR 2453, §311, adding §743(b)(2) to the Clean Air Act.
- <sup>98</sup> *Id.*, adding §743(c)(1) to the Clean Air Act.
- <sup>99</sup> *Id.*, adding §743(c)(2) to the Clean Air Act.
- <sup>100</sup> *Id.*, adding §743(d)(1) to the Clean Air Act.
- <sup>101</sup> *Id.*
- <sup>102</sup> *Id.*, adding §743(d)(2) to the Clean Air Act.
- <sup>103</sup> *Id.*, adding §743(e)(1) to the Clean Air Act.
- <sup>104</sup> *Id.*, adding §743(e)(1)(A) to the Clean Air Act.
- <sup>105</sup> *Id.*, adding §743(e)(1)(B) to the Clean Air Act.
- <sup>106</sup> *Id.*, adding §743(e)(1)(C) to the Clean Air Act.
- <sup>107</sup> *Id.*, adding §743(e)(1)(D) to the Clean Air Act.
- <sup>108</sup> *Id.*, adding §743(e)(1)(E) to the Clean Air Act.
- <sup>109</sup> American Clean Energy and Security Act, HR 2453, §321, adding §781(a) to the Clean Air Act.
- <sup>110</sup> American Clean Energy and Security Act, HR 2453, §311, adding §753(a) to the Clean Air Act.
- <sup>111</sup> *Id.*, adding §754(c) to the Clean Air Act.
- <sup>112</sup> *Id.*, adding §754(b)(1) to the Clean Air Act.
- <sup>113</sup> American Clean Energy and Security Act, HR 2453, §321, adding §782(a)-(o) to the Clean Air Act.
- <sup>114</sup> *Id.*
- <sup>115</sup> *Id.*, adding §782(p) to the Clean Air Act.

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- <sup>116</sup> *Id.*, adding §782(q) to the Clean Air Act.
- <sup>117</sup> *Id.*, adding §782(r) to the Clean Air Act.
- <sup>118</sup> *Id.*, adding §782(q) to the Clean Air Act.
- <sup>119</sup> *Id.*, adding §782(r) to the Clean Air Act.
- <sup>120</sup> *Id.*, adding §789(a) to the Clean Air Act.
- <sup>121</sup> *Id.*, adding §783(a)(1) to the Clean Air Act.
- <sup>122</sup> *Id.*, adding §783(a)(3) to the Clean Air Act.
- <sup>123</sup> *Id.*, adding §783(a)(2) to the Clean Air Act.
- <sup>124</sup> *Id.*, adding §783(b)(2) to the Clean Air Act.
- <sup>125</sup> *Id.*, adding §783(b)(3) to the Clean Air Act.
- <sup>126</sup> *Id.*, adding §783(b)(4) to the Clean Air Act.
- <sup>127</sup> *Id.*, adding §783(d)(2) to the Clean Air Act.
- <sup>128</sup> *Id.*, adding §783(c)(3) to the Clean Air Act.
- <sup>129</sup> *Id.*, adding §783(c)(1) to the Clean Air Act.
- <sup>130</sup> *Id.*, adding §783(c)(2) to the Clean Air Act.
- <sup>131</sup> *Id.*, adding §783(c)(5) to the Clean Air Act.
- <sup>132</sup> *Id.*, adding §784(b)(1) to the Clean Air Act.
- <sup>133</sup> *Id.*, adding §784(b)(2) to the Clean Air Act.
- <sup>134</sup> *Id.*, adding §784(c)(1) to the Clean Air Act.
- <sup>135</sup> *Id.*, adding §784(c)(4) to the Clean Air Act.
- <sup>136</sup> *Id.*, adding §785(b) to the Clean Air Act.
- <sup>137</sup> *Id.*, adding §785(c) to the Clean Air Act.
- <sup>138</sup> *Id.*, adding §785(d) to the Clean Air Act.
- <sup>139</sup> *Id.*, adding §787(a) to the Clean Air Act.
- <sup>140</sup> *Id.*, adding §787(e)(1) to the Clean Air Act.
- <sup>141</sup> *Id.*, adding §787(b)(3) to the Clean Air Act.
- <sup>142</sup> *Id.*, adding §787(b)(2) to the Clean Air Act.
- <sup>143</sup> *Id.*, adding §787(b)(1) to the Clean Air Act.

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- <sup>144</sup> *Id.*, adding §787(b)(6) to the Clean Air Act.
- <sup>145</sup> *Id.*, adding §787(e)(2) to the Clean Air Act.
- <sup>146</sup> *Id.*, adding §787(e)(3) to the Clean Air Act.
- <sup>147</sup> *Id.*, adding §790(a) to the Clean Air Act.
- <sup>148</sup> *Id.*, adding §90(b)(1) to the Clean Air Act.
- <sup>149</sup> *Id.*, adding §790(c) to the Clean Air Act.
- <sup>150</sup> *Id.*, adding §790(b)(2),(3) to the Clean Air Act.
- <sup>151</sup> *Id.*, adding §791(b)(1) to the Clean Air Act.
- <sup>152</sup> *Id.*, adding §791(b)(4) to the Clean Air Act.
- <sup>153</sup> *Id.*, adding §791(b) to the Clean Air Act.
- <sup>154</sup> *Id.*, adding §791(b)(6) to the Clean Air Act.
- <sup>155</sup> *Id.*, adding §791(c) to the Clean Air Act.
- <sup>156</sup> *Id.*, adding §791(d) to the Clean Air Act.
- <sup>157</sup> *Id.*
- <sup>158</sup> American Clean Energy and Security Act, HR 2453, §332, adding §619(a) to the Clean Air Act.
- <sup>159</sup> *Id.*, adding §619(b)(1) to the Clean Air Act.
- <sup>160</sup> *Id.*, adding §619(b)(2) to the Clean Air Act.
- <sup>161</sup> *Id.*, adding §619(b)(4) to the Clean Air Act.
- <sup>162</sup> *Id.*
- <sup>163</sup> *Id.*, adding §619(b)(5) to the Clean Air Act.
- <sup>164</sup> *Id.*, adding §619(b)(6)(A)(i) to the Clean Air Act.
- <sup>165</sup> *Id.*, adding §619(b)(6)(A)(vi)-(viii) to the Clean Air Act.
- <sup>166</sup> *Id.*, adding §619(b)(9) to the Clean Air Act.
- <sup>167</sup> *Id.*
- <sup>168</sup> *Id.*
- <sup>169</sup> *Id.*, adding §619(n)(1) to the Clean Air Act.
- <sup>170</sup> *Id.*, adding §619(o) to the Clean Air Act.
- <sup>171</sup> American Clean Energy and Security Act, HR 2453, §334.

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> American Clean Energy and Security Act, HR 2453, §401, adding §764(b) to the Clean Air Act.

<sup>175</sup> *Id.*, adding §765(b) to the Clean Air Act.

<sup>176</sup> *Id.*, adding §765(a)(1)(B) to the Clean Air Act.

<sup>177</sup> *Id.*, adding §767(a) to the Clean Air Act.

<sup>178</sup> *Id.*, adding §767(b) to the Clean Air Act.

<sup>179</sup> *Id.*, adding §767(c) to the Clean Air Act.

<sup>180</sup> *Id.*, adding §766(a)(1)(A) to the Clean Air Act.

<sup>181</sup> *Id.*, adding §766(a)(1)(B) to the Clean Air Act.

<sup>182</sup> *Id.*, adding §763(6) to the Clean Air Act.

<sup>183</sup> *Id.*, adding §766(a)(1)(C) to the Clean Air Act.