



## **Analysis of H.R. 2454, The Waxman-Markey American Clean Energy and Security Act of 2009 (ACESA)**

*Updated: 6/4/2009<sup>1</sup>*

The American Clean Energy and Security Act of 2009 introduced as H.R. 2454 by Chairmen Henry A. Waxman (CA-30) and Edward J. Markey (MA-7) is the only viable legislative opportunity we have before the Copenhagen Climate Change Conference to move the United States toward a clean energy economy that will create jobs, strengthen our economy, make us more energy independent, and limit dangerous global warming pollution. However, it is clear given recent changes since the discussion draft was released that Big Oil, Dirty Coal, and other polluters are continuously working to riddle this bill with loopholes, water it down, and keep America dependent on dirty fuels like oil and coal. In the last three months alone, fossil fuel companies have outspent environmental groups 16 to 1 on capital hill. The industries spent \$79 million to lobby Congress, outspending the green community's comparatively meager \$4.7 million in the same time period. We must resolve to be 16 times louder, and draw on the power of ordinary citizens from all walks of life, channeling their voices in ways that move and improve this bill to make up for the disparity in the financial resources we have available.

Frustration from many in the climate community is understandable in light of the compromises being made at the expense of new jobs, and clean energy. We believe it is critical that we channel this energy constructively to strengthen the bill and achieve the win that we need: passing climate legislation strong enough to withstand international scrutiny before Copenhagen. Passing strong legislation this year will demonstrate U.S. leadership, and strengthen our negotiating power to bring other heavy emitters like China and India into an international treaty. We must ensure that President Obama has the tools to broker an equitable and effective global climate agreement in Copenhagen this December.

**H.R. 2454 is the first piece of comprehensive climate and energy legislation with a serious chance of being signed into law. But this clean energy jobs bill will best serve America if we strengthen its provisions to maximize job creation, invest in the skills of our workers and the long-term economic prosperity of our country, and significantly reduce the pollution that has been caused by fossil fuel industries for decades. We recommend the following changes to strengthen the bill before it passes:**

- **Ensure More Clean Energy for America:** Increase the combined renewable energy and energy efficiency standard to 30% by 2020 to deliver more clean energy jobs to the U.S. economy more quickly. Utilities should have to achieve at least 17% mandatory renewables and 10% mandatory efficiency by 2020, while maintaining flexibility to do either with 3%. Strengthening these clean energy standards will create over 100,000 new jobs in the wind industry alone – jobs that otherwise would be left on the cutting room floor.
- **Hold Polluters Accountable:** Restore authority to the EPA to mandate cleaner technology for power plants. Right now, the EPA has the power to stop investments in dirty plants and mandate that existing plants clean up their act – the EPA must retain these powers. In place of that authority, the bill would establish performance standards only for new coal-fired power plants, but those standards don't phase in for many years and don't cover the 600 dirty coal plants currently in operation and in need of immediate oversight.
- **Create More Clean Energy Jobs for America:** Limit allocations to polluting industries, like Big Oil and Dirty Coal, and instead supplement allowance accounts that would bolster green job development and protection of vulnerable communities. Reduce allocations from fossil fuel producers and redistribute to

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<sup>1</sup> This analysis includes modifications made in the amendment in the nature of a substitute to H.R. 2454 sponsored by Chairmen Waxman and Markey released on May 18, 2009, in addition to other amendments that passed during the Energy and Commerce Committee Markup. For questions or comments contact Jason Kowalski via e-mail at [jason@1sky.org](mailto:jason@1sky.org) or by phone at 301.270.4550 ext. 233

programs that deliver energy efficiency and renewable energy, create green jobs and train workers to fill them, and protect natural resources and vulnerable communities here and around the world.

**With these changes and no further weakening, H.R. 2454 has the potential to:**

- **Help create a powerful clean energy economy strong enough to create millions of career-track green-collar jobs for American workers.**
- **Save hundreds of billions of dollars in energy costs, cutting energy waste** for consumers and businesses across the economy by encouraging investment in efficient buildings, appliances, vehicles, and industrial processes. Clean energy investments and money sent to consumers allows the overwhelming majority of Americans to achieve overall energy cost savings, while reducing reliance on dirty fuels nationwide.
- **Reduce our dangerous dependence on foreign oil** and help make our country energy independent through the development and use of clean renewable energy.
- **Limit global warming pollution** by providing incentives for clean energy to thrive, and investing in emissions reductions worldwide. Even in its current form, analysis indicates that ACESA could reduce global warming pollution at least 28% below 2005 levels by 2020 via the combined effect of a cap on carbon and complementary policies.

**Major Regulatory Provisions of H.R. 2454, The Waxman-Markey  
“American Clean Energy and Security Act of 2009”**

<b>Key Items</b>	<b>Major Provisions</b>	<b>1Sky Goals</b>
<b>Targets &amp; Offsets</b>	<p><b>2020 Near-term Targets:</b></p> <ul style="list-style-type: none"> <li>✓ At least 28% below 2005 levels (18% below 1990 levels), from a combination of the cap and complementary policies.</li> <li>✓ 15% of these total reductions below 2005 levels are from the cap (17% below 2005 levels over 85% of the economy), and the rest are from domestic emissions cuts outside the cap (3%), avoided tropical deforestation (10%), and potentially more cuts via discounted offsets (0-5%).</li> </ul> <p><b>2050 Long-term Targets:</b></p> <ul style="list-style-type: none"> <li>✓ At least 75% cuts below 2005 levels total via the cap and complementary policies (71% below 1990 levels).</li> </ul> <p><b>International Offsets</b></p> <ul style="list-style-type: none"> <li>✓ High levels of international carbon offsets may be purchased in place of domestic emissions reductions – up to 1.5 billion tons annually – which is around 20% of annual emissions in the U.S. These offsets are paired with stringent quality standards and regulatory requirements, including a 1.25 offset substitution requirement starting in 2017.</li> </ul> <p><b>Domestic Offsets</b></p> <ul style="list-style-type: none"> <li>✓ High levels of domestic carbon offsets – up to 1 billion tons annually – may also be purchased in place of domestic emissions reductions. The EPA predicts that less than half a billion tons of offsets will come online in the next 30 years – equivalent to about 7% of annual U.S. emissions.</li> </ul>	<p>Cut carbon emissions by at least 35% below 2005/current levels by 2020, equivalent to at least 25% below 1990 levels, in line with the Intergovernmental Panel on Climate Change (IPCC) analysis. 1Sky is also concerned with the bill’s very high levels of international carbon offsets, and urges direct investments in emissions reductions rather than offsets that come in place of domestic reductions in fossil fuel consumption.</p>
<b>Energy Efficiency</b>	<p><b>Stronger Efficiency Standards</b></p> <ul style="list-style-type: none"> <li>✓ Strong new building codes set energy efficiency targets for new buildings: 30% by 2010 and 50% by 2016.</li> <li>✓ Strengthens efficiency standards for lighting and a number of appliances such as hot tubs, furnaces, bottle-type water dispensers, and televisions, including reward programs for “best-in-class” high-performance models. Mandates better efficiency rating and labeling to help guide consumers toward cost-effective appliances, including products that include smart-grid capability.</li> </ul>	<p>1Sky is very supportive of enhanced energy efficiency standards and investments. We are especially excited by the prospect of using existing administrative authority to set and strengthen efficiency standards for vehicles, buildings, appliances, and industrial processes. Strong efficiency standards have the potential to save our economy billions of dollars that would have</p>

	<ul style="list-style-type: none"> <li>✓ Mandates states and metropolitan regions to create new transportation plans that establish emission reduction goals from their transportation sectors. A competitive grant program is authorized to implement these plans.</li> </ul> <p><b>Directs the Administration to Set Efficiency Standards</b></p> <ul style="list-style-type: none"> <li>✓ Establishes programs directing the EPA and Department of Energy to work with states and local governments to improve efficiency of existing buildings through retrofits.</li> <li>✓ Directs the EPA to set efficiency standards for new nonroad vehicles and engines, such as marine vessels, locomotives, and aircraft.</li> <li>✓ Requires that standards are established for industrial energy efficiency, providing incentives for recovering waste energy from industrial processes, and reducing peak demand from the aging electricity grid.</li> </ul> <p><b>Opportunities for Low-Income Communities:</b></p> <ul style="list-style-type: none"> <li>✓ Authorizes and increases access to grants for communities and community development organizations to provide financing to improve energy efficiency and develop distributed renewable energy supplies in low-income rural and urban communities. Includes provisions that help low-income families upgrade to Energy Star-rated manufactured homes.</li> </ul>	<p>been spent on fossil fuels, while also encouraging innovation and creating new jobs.</p>
<p><b>Clean Energy</b></p>	<p><b>Combined Efficiency and Renewable Electricity Standard (RES) of 20% by 2020</b></p> <ul style="list-style-type: none"> <li>✓ The federal RES requires individual utilities to produce 20% of their power from renewables, efficiency, and other sources by 2020. Broad renewables definition includes efficiency savings (for up to 8%), biomass, combustion of coal bed methane, and MSW combustion (burning trash). New nuclear plants and fossil fuel plants with CCS (carbon capture and sequestration) can be substituted in place of renewables and efficiency.</li> <li>✓ Because of utility exemptions, baseline deductions and opt-out provisions, renewable energy generation required under this proposal may be as low as 8.3% by 2020, which is lower than business as usual.</li> </ul> <p><b>Smart Grid</b></p> <ul style="list-style-type: none"> <li>✓ Directs federal agencies to coordinate regional smart grid planning, and assess products for smart grid capability.</li> </ul>	<p>1Sky is supportive of a federal Renewable Electricity Standard that is stronger than business as usual. The Energy Information Agency projects that current state and federal policies will result in approximately 10% renewable generation by 2020. The RES should be strengthened significantly to ensure that renewable power deployment exceeds business as usual nationwide.</p> <p>An improved smart grid will be crucial for developing cost-effective clean energy resources.</p>
<p><b>Coal</b></p>	<p><b>Elimination of Existing EPA Powers</b></p> <ul style="list-style-type: none"> <li>✓ EPA is stripped of regulatory authority to set performance standards for new and existing coal plants.</li> </ul> <p><b>New EPA-enforced Performance Standards for Coal Plants</b></p> <ul style="list-style-type: none"> <li>✓ Any new coal plant permitted after 2009 is required to undergo expensive retrofits that capture and sequester at least 50% carbon-pollution sometime between 2013 and 2025 (sooner if CCS plants come online by 2020).</li> <li>✓ After 2020, new coal plants must capture and sequester at least 65% of their global warming pollution upon construction.</li> </ul> <p><b>Wires Charge to Fund New Coal Plants with CCS</b></p> <ul style="list-style-type: none"> <li>✓ Adds a fee to electricity bills that will then be given to utilities to invest in new coal plants with CCS. Price tag: \$1 billion/yr for 10 years.</li> </ul>	<p>Enact an immediate moratorium on new coal-fired plants that emit carbon pollution. The over 600 existing coal plants represent over 75% of U.S. electricity emissions, and operate at lower performance than other forms of cost-effective electricity generation. Performance standards for coal plants are needed to ensure that the existing fleet is not allowed to build new plants or retrofits that use old technology and increase carbon emissions. Instead of funding new coal plants, public monies should support proven renewable energy and efficiency projects that are already commercialized, create more jobs, and save consumers money.</p>

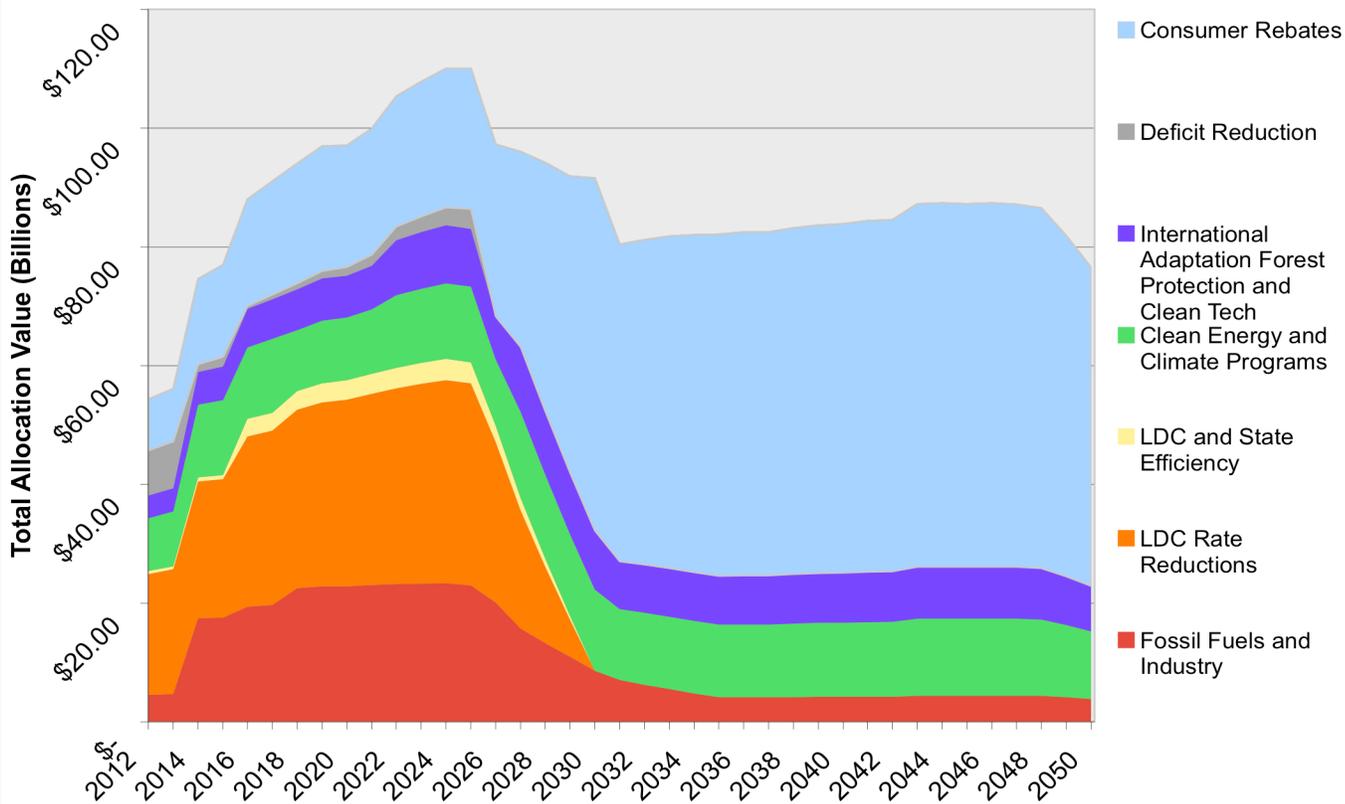
## Allocation Provisions of H.R. 2454, The Waxman-Markey “American Clean Energy and Security Act of 2009” (2020 snapshot)

Under H.R. 2454, carbon pollution permits decline in quantity but increase in value starting in 2012. Each year polluters will need to purchase one permit for every ton of pollution they emit. The House Energy and Commerce Committee has decided to “allocate” these valuable pollution permits, or “allowances,” to states, administrative entities, federal programs, and the private sector. The majority of these allowances will be sold to polluters in return for revenue for the purposes identified below. Value of the compliance year allocation pool is approximately \$90 billion by 2020.

Allowance %	Major Provisions (2020 snapshot)	1Sky Goals
<b>Fossil Fuel Companies and Energy-Intensive Industries</b> <b>25%</b>	<p><b>2% Oil Refineries</b></p> <ul style="list-style-type: none"> <li>✓ These allowances are given to the oil industry. Oil companies still feel the market signal of a price on carbon, but they also receive money to help offset the new costs associated with dirty carbon-based fuels.</li> </ul> <p><b>5% Coal Plant Operators</b></p> <ul style="list-style-type: none"> <li>✓ Allowances given to merchant coal and long-term power purchase agreements according to a formula developed by utilities. Utilities still feel the market signal of a price on carbon, but they also receive money to help offset the new costs associated with dirty carbon-based fuels.</li> </ul> <p><b>5% Coal CCS (Carbon Capture and Sequestration)</b></p> <ul style="list-style-type: none"> <li>✓ This provision gives public funding to new commercial-scale plants that use CCS technology to capture and sequester at least 50% of their carbon pollution. More funding is distributed to better-performing large-scale plants.</li> </ul> <p><b>13% Energy-Intensive Trade-Exposed Industries</b></p> <ul style="list-style-type: none"> <li>✓ These allowances are designed to prevent energy-intensive industries from moving jobs and emissions abroad. Allocations start at 15% and decline over time.</li> <li>✓ Supplemented and eventually replaced by a border tax adjustment (carbon tariff) in 2025.</li> </ul>	<p>Valuable allowances should not be given away to polluters for free. Taxpayer monies should be invested in a clean energy transition, not spent cleaning up after polluters.</p> <p>Instead of paying utilities to build new coal plants, these valuable allowances should support renewable energy and efficiency projects that are already commercialized, affordable, create more jobs, and save consumers more money than investments in fossil fuel infrastructure.</p> <p>1Sky supports a border tax adjustment (carbon tariff) as soon as possible. Output-based rebates given to industries should be linked with energy efficiency measures, which will make existing industries more competitive by cutting energy costs.</p>
<b>Reducing Retail Energy Prices via Local Distribution Companies (LDCs)</b> <b>36%</b>	<p><b>30% Electricity Rate Reductions via LDCs (Electric Utilities)</b></p> <ul style="list-style-type: none"> <li>✓ The value of these allowances is equal to 90% of the increased costs for utilities under a carbon cap. With allowance value going to LDCs, power generators still feel the market signal of a price on carbon, but commercial and residential ratepayers are buffered from 90% of the price increase, which reduces the incentive for them to invest in cost-effective energy efficiency measures. State-based public utility commissions and the EPA are given the power to revoke allowances from LDCs if they do not pass the full value of these allowances to consumers through reduced electricity bills.</li> </ul> <p><b>6% Natural Gas Rate Reductions via LDCs (Energy Providers)</b></p> <ul style="list-style-type: none"> <li>✓ The value of these allowances is equal to two-thirds of the increased costs for natural gas companies under a carbon cap. Like the electric utilities, natural gas companies will still feel the market signal of a price on carbon, but commercial and residential ratepayers are buffered from two thirds of the price increase, which reduces the incentive for them to invest in cost-effective energy efficiency measures. As with electric utilities, state-based public utility commissions and the EPA are given the power to revoke allowances from LDCs if they do not pass the full value of these allowances to consumers through natural gas bills.</li> </ul>	<p>Investing in energy efficiency, clean energy, and direct consumer rebates are all more cost-effective means of reducing energy costs for ratepayers than price manipulation via LDCs. Artificially lowering the cost of energy disincentives private investments in energy efficiency and clean energy. Allowing a carbon price to permeate throughout the economy will produce more jobs, reduce emissions at lower net cost, and would be better on a whole for the economy. In addition, the regulatory integrity of the utility commissions overseeing LDCs varies from state to state. It will be up to the EPA to ensure that utilities aren't making windfall profits from this system.</p>

<b>State and LDC Energy Efficiency Investments</b> <b>4%</b>	<b>4% State and LDC Energy Efficiency</b> <ul style="list-style-type: none"> <li>✓ These allowances are distributed to LDCs and states to invest in heating oil and natural gas efficiency measures. These projects are designed to save consumers money by investing in low-cost common sense energy-saving projects.</li> </ul>	<p>1Sky supports extensive investments in energy efficiency. Efficiency projects reduce carbon and cut costs for consumers more cost-effectively than using valuable allowances for price manipulation via LDCs.</p>
<b>Consumer Rebates</b> <b>16%</b>	<b>15% Federal Low-Income Consumer Rebates</b> <ul style="list-style-type: none"> <li>✓ These allocations are auctioned and used to send direct lump-sum payments to low-income consumers, whose prices will be influenced by climate policy. Because low-income households spend a higher percentage of their income on energy than other households, it's important to target rebates to this segment of the population.</li> </ul> <b>1% Home Heating Oil Consumer Rebates</b> <ul style="list-style-type: none"> <li>✓ Distributed through states most impacted by higher heating oil prices.</li> </ul>	<p>1Sky supports consumer rebate programs in place of manipulating energy prices via local distribution companies. Sending income-based rebates directly to low- and moderate-income consumers entirely makes up for utility rate increases, while increasing the savings gleaned from small-scale investments in energy efficiency.</p>
<b>Public Investment in a Clean Energy Future</b> <b>10%</b>	<b>7.0% to Renewables and Energy Efficiency</b> <ul style="list-style-type: none"> <li>✓ 5.5% for clean tech deployment.</li> <li>✓ 1.5% for clean tech R&amp;D.</li> </ul> <b>1% Electric Vehicles</b> <ul style="list-style-type: none"> <li>✓ A program to help fund research, development, and implementation for electric vehicles and other advanced automobile technology. Funded at 3% for the first 6 years.</li> </ul> <b>0.5% for Green Job and Transition Programs</b> <ul style="list-style-type: none"> <li>✓ Funding is targeted toward workers who are affected by the transition from fossil fuels to clean energy.</li> </ul> <b>2% for Domestic Adaptation</b> <ul style="list-style-type: none"> <li>✓ Funds to help vulnerable communities and ecosystems adapt to climate change. Half for wildlife and natural resource protection, and half for other adaptation purposes, like public health.</li> </ul>	<p>Instead of funding new coal plants, public monies should support renewable energy and efficiency projects that are already commercialized, affordable, and create four times more jobs than fossil fuel infrastructure investments. Training programs are necessary to ensure that new job opportunities created by this legislation are available to all communities in need of good jobs.</p>
<b>Crucial International Investments</b> <b>7%</b>	<b>1% International Adaptation</b> <b>5% Reducing Tropical Deforestation</b> <b>1% Exporting Clean Energy</b> <ul style="list-style-type: none"> <li>✓ Allocating funds to help vulnerable communities adapt to climate change, protect tropical forests, and export clean energy technology increase our bargaining power at the international climate negotiations coming up this December in Copenhagen. These funds assist vulnerable communities in developing countries as they transition to low-carbon economies and adapt to the changing climate.</li> </ul>	<p>A substantial increase in funding will be necessary to make a binding global climate treaty a reality. Setting aside more allowances for these purposes will improve the prospects for an effective international climate agreement in Copenhagen this December. Without a stronger financial commitment, a global agreement on climate will be in serious jeopardy.</p>
<b>Deficit Reduction</b> <b>2%</b>	<ul style="list-style-type: none"> <li>✓ Allowance value is transferred to the U.S. Treasury, which allows the bill to be scored as deficit-neutral by the CBO (Congressional Budget Office).</li> </ul>	

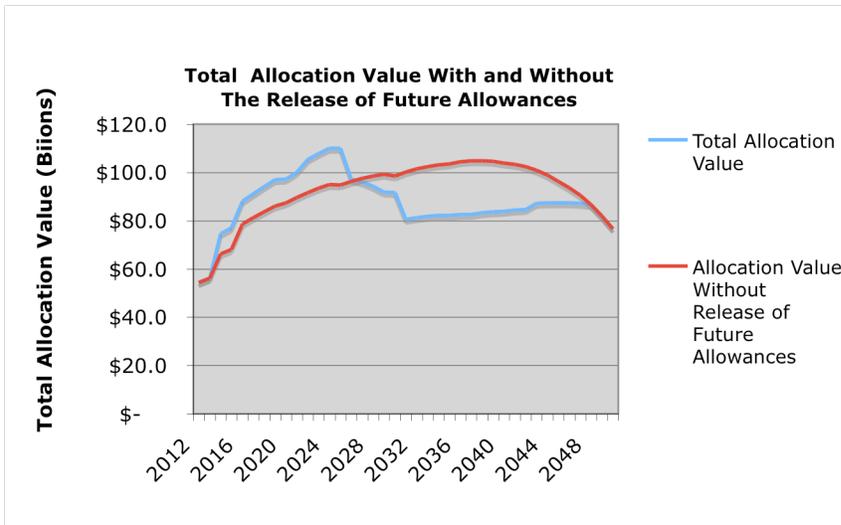
## Waxman-Markey H.R. 2454 Allocations



- **Allowance Price Date** is averaged from EPA analysis, including 10% price cut modeled in the updated analysis of H.R. 2454 as introduced. Allowance prices in the initial years are predicted to begin at around \$12 per allowance in 2012, rising to \$18 in 2020, and \$76 in 2050 (2005 dollars).
- **Allocation Value:** The graph above represents annual allocation value, including allowances released from future years, as specified in sections 782(g) and 782(p). The release of future allowances will not impact emissions reductions because the allowances released cannot be used for compliance immediately upon release. This analysis assumes that all allowances are sold at market price upon release, regardless of vintage year, even though these allowances may only be used for compliance in future years.
- **Strategic Reserve:** Each year 1-3% of allowances are placed in a “strategic reserve” rather than being allocated. The allowances placed into the reserve are released only if the allowance price spikes above 60% of the average three-year market price. If the strategic reserve trigger price is not reached, allowances in this reserve will not be released, in effect tightening the cap. If the trigger price is reached, international deforestation offsets are used to refill the reserve. The above graph is based on EPA allowance price figures, which do not suggest that this trigger price will be reached.

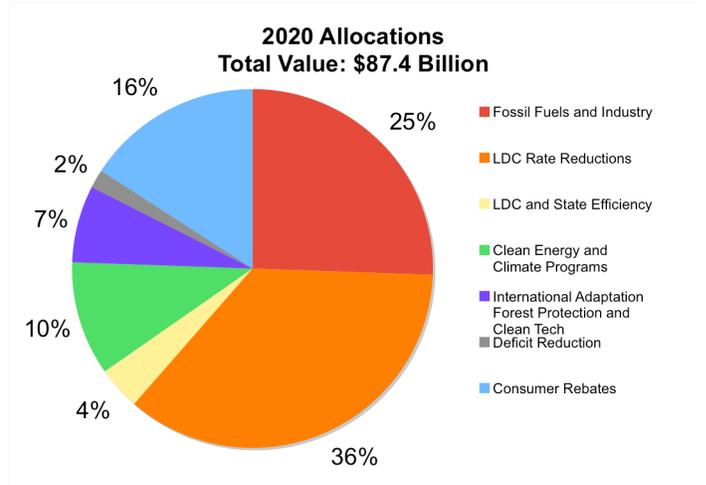
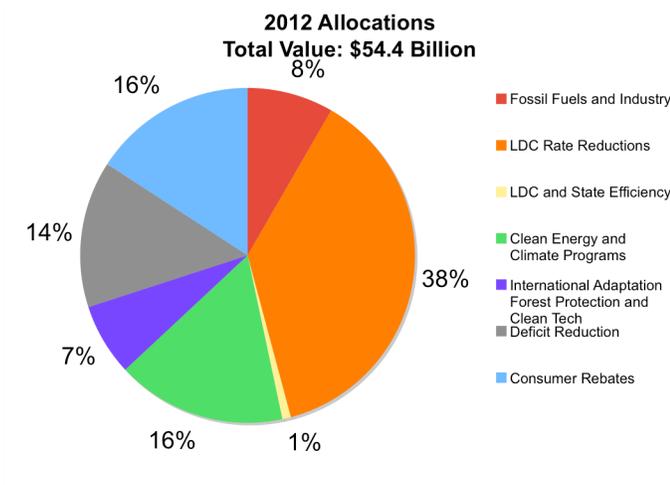
### How Release of Future Allowances Works:

When allowances from future years are released, the graph to the right shows how these changes affect the total allocation value over time. In H.R. 2454 some allowances from the years 2027-2047 are released early on, in the years 2014-2026, per sections 782(g) and 782(p). Releasing valuable future allowances ahead of time helps provide extra resources for programs associated with the allocation priorities of later years, namely consumer rebates, clean technology, and adaptation.



### Single-Year Allocations Analysis:

Snapshots for 2012 and 2020, not including release of future allowances.



### Multi-Year Allocations Analysis:

Cumulative allowance value over short- and long-term, including release of future allowances.

