

Categories	McCain/Lieberman	Kerry/Snowe	Feinstein	Olver	Waxman	California	Boxer
1. Long-Term Goals (ambient)	None	450 ppm CO ₂ ¹ global average concentration	Achievement of “safe climate level”: “stabilize atmospheric GHG concentrations at a level that prevents dangerous anthropogenic interference with the climate system.” §712(a).	None	-Achievement of Safe Climate Level as defined by UNFCCC: stabilize atmospheric GHG concentrations at a level that prevents dangerous anthropogenic interference with the climate system - Also: 2° C max rise	None	<ul style="list-style-type: none"> Ensure that global average temperatures do not rise more than 3.6 degrees Fahrenheit and that the atmospheric concentration of GHGs does not exceed 450 ppm.
2. Long-Term Goals (emissions)	After 2050: 2.096m tons	65% reduction in emissions from 2000 levels (perhaps to be determined by EPA?)	To be set by Climate Science Advisory Panel. §712(b)	Cap of 1500 Million tons of GHG/yr by 2050	2050: Less than 20% of 1990 emissions §701(3)	Achieve 1990 level of emissions by 2020; Past 2020, State Air Resources Board will make recommendations (to Legislature?)	<ul style="list-style-type: none"> Reduce United States emissions of GHGs to 80% below 1990 levels by 2050.

CO₂ is used as a standard of measurement – actual concentrations of CO₂ and other GHGs will vary, depending on the proportionate presence of each.

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<p>3. Mandatory Caps</p>	<p>2011: 6.130M tons 2020: 5.239M tons 2030: 4.1M tons After 2050: 2.096m tons Final allowable emissions will be the above number minus what the administrator determines is the emission level of non-covered sources.</p>	<ul style="list-style-type: none"> • By 2020, reduce emissions to 1990 level • 2021-2030, reduce 2.5% per year • 2031-2050, reduce 3.5% per year 	<p>2011: 2006 levels 2015: 2001 levels 2016-2019: each year = 1% less than previous year 2020+: each year = 1.5% less than previous year (subject to EPA modification based on economics, after report from Climate Advisory Panel on concentrations)</p>	<p>4 steps of declining mandatory, numerical limits 2012: 6,150 M metric t 2020: 5,232 2030: 3,858 2040: 2050:1,504</p>	<p>2010 =< 2009; starting in 2011, a 2% reduction yearly so that by 2020=1990; starting in 2021, a 5% reduction yearly so that by 2050=20% of 1990 (subject to EPA modification based on economics, after report from NAS Panel on concentrations)</p>	<p>Achieve 1990 level of emissions by 2020</p>	<p>Emissions must be down to 1990 levels by 2020, reduced by 1/3 of 80% of 1990 levels by 2030, 2/3 of 80% of 1990 levels by 2040, and 80% of 1990 levels by 2050.</p>
<p>4. Regulated Entities</p>		<p>Passenger vehicles, electricity producers, fuel producers, auto makers, and other GHG producers as determined by Administrator.</p>		<p>Electricity utility, Commercial, Industry, Transportation</p>		<p>Sources to be determined by State Air Resources Board (state board). Must include any entity that emits GHGs at a “level of significance,” that is determined by the discretion of the state board.</p>	<p>Manufacturers of Motor Vehicles; Electricity Generation Facilities; Retail Electricity Suppliers all other entities left to EPA discretion Exc except: All Securities Regulated Under SEC, and All Federal Agencies subject to NEPA analysis.</p>
<p>4.1 Mob. Sources</p>	<p>Nothing directly—focus is on sellers of petroleum products used in mobile sources. Administrator determines how much GHG is produced per unit of fuel used, and</p>	<p>Applies to passenger vehicles and light trucks; administrator promulgates to meet mandatory</p>	<p>Not regulated</p>	<p>Fuel refineries and importers regulated</p>	<p>EPA regs shall include standards for motor vehicles</p>	<p>Not specifically addressed</p>	<p>Specific numerical limits set for 2016 model year; after that, EPA has discretion to set higher standards; also Federal Fleet Fuel Economy Standards.</p>

	estimates total emissions from all vehicles and accounts for it in determining the number of tradable allowances.	caps, but regs must be at least as strict as California standards (13 CCR 1961.1)					
4.2 Stat. Sources	Anything emitting more than 10,000 metric tons of GHGs/year, plus refiners and sellers of petroleum products.	Electricity producers required to meet graduated schedule of reduction in peak demand and overall energy use, and schedule of increased renewable energy production.	Prescribed by Congress; Electricity generating facilities (capacity greater than 25 megawatts);	Entities that emit >10,000 tons/yr	market-based cap will apply only to “sources or sectors” with the largest emissions; the most cost-effective opportunities for reduction; or characteristics EPA Administrator determines make it appropriate to include; additional EPA regs may apply to any source or sector of the US economy	Not specifically addressed	Electricity generation facilities put into operation after 2011 must meet emission standards of natural gas plants; after 2030, all electricity facilities must meet standards; electricity generators above 25 megawatts must provide a percentage of their power from low-carbon fuel sources. Also Retail Energy Suppliers must implement Energy Efficiency Standards to Reduce Peak Levels on a set schedule by 2020 and creates a Renewable Portfolio Standard (RPS) of 20% by 2020 from Electricity Retailers. Gives Administrator discretion to determine renewable sources w/ a few exceptions. States w/ higher RPS preempt Federal RPS.
5. Administering Agency	EPA, Various Secretaries	<ul style="list-style-type: none"> EPA Sec. of Agriculture administers carbon sequestration program 	EPA	EPA	EPA	State Air Resources Board (state board)	EPA; NAS is given reporting and analysis duties. SEC regulates securities reporting, Senate monitors International negotiations, President creates taskforce for Clean Energy Technology Deployment to

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		<ul style="list-style-type: none"> SEC administers climate risk disclosure program 					Developing Countries
5.1 Economic Incentives/ Disincentives	Secretary of Commerce, EPA Administrator, to a certain extent the President through medals. National Science Foundation for grants. Joint venture program. Lending of federal employees to private sector.	Tax credits for technology development, increased efficiency; allows unregulated entities to earn credits or grants by voluntarily following guidelines.				<u>Incentives</u> <ul style="list-style-type: none"> State board to recommend incentives as part of its reduction plan due January 1, 2009 Entities that have voluntarily reduced their GHG emissions to receive credit for those reductions <u>Disincentives</u> <ul style="list-style-type: none"> Fines for violations of regulations State board to recommend disincentives as part of its reduction plan due January 1, 2009	Tax/ Automatic FEE Automatic Fee charged when Retail Electricity Supplier exceeds target level no less than \$.04 per KW/hr. Instructs Administrator to implement a fee schedule for Electricity Retailers that fail to meet the Renewable Portfolio Standard.
5.1.1 Taxes							
5.1.2 Automatic Penalties	Failure to submit reports (unless under an exemption) automatically triggers illegality of releasing GHGs.	Yes – for cap and trade	Incentive – credit awarded for early reduction of GHGs or sequestration projects	Civil penalties assessed upon verification by EPA throughout the year	entity submit allowances the next year and pay civil penalty 2x market price for an allowance at the end of that year		
5.1.3 Only if Prosecuted				(isn't prosecution or filing some action the only technical way		Civil and Criminal fines for violations	Failure of Stationary Sources, to report, or follow reporting requirements enforceable under CAA §113. Vehicle emission standards subject to §202,

				to “enforce” a penalty or fine? It is possible that the fine is automatic and the entity just doesn’t pay)			Securities are subject to the SEA of 1934
5.2 Enforcement 5.2.1 Penalties	Civil penalty of three times fair market value of emissions in excess of existing tradable allowances, payable to the Administrator.	Reduction of allowances under cap and trade; fines;	When a source’s emissions exceed its credits, it must submit 1.3 credits to EPA for each ton in excess and pay a penalty.	Civil penalty = 3x FMV of allowance		<ul style="list-style-type: none"> • Violations may be enjoined by civil suit brought by “People of California” • Violators subject to criminal prosecution and fines (misdemeanor) • Civil Penalties apply to motor vehicle fuel distributors in violation 	
5.2.2 Fed./State/ Citizen	Probably same as CAA.		CAA provisions apply, e.g. Federal enforcement permitted under § 113 of CAA	Not mentioned, assumed the same as CAA		State; unclear if citizens can bring suit	Judicial review of Administrator's actions under §307
5.2.3 Defenses	Administrator can declare source categories to be not feasible to measure, and are then exempted.			None specified by statute, perhaps challenge of determination of FMV, Constitutional Challenges – excessive fines		Not addressed	
5. Feasibility & Cost		Passenger vehicle standards				Reductions to be achieved with maximum feasibility and cost-effectiveness	EPA must choose most “cost-effective strategies” for emissions reductions; NAS must

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		subject to “technological feasibility”					report if technological infeasibility is a problem
5.1 Overall Deadlines	Not affected.	EPA must promulgate regs w/in 2 years of bill enactment	EPA must establish trading program within 18 months	Not affected by feasibility		Achieve 1990 level of emissions (determined by state board) by 2020	
5.2 Categorical Exemptions	Sources under 10,000 metric tons/year, anything the Administrator finds not feasible to measure (but cannot do so for any fossil fuel emissions).		Coal-fired power plants are not to be allocated allowances, but exemptions for those using “clean coal” and a grandfather-clause for non-new plants	Limited exemption for categories that can’t feasibly be measure – allocation based on sector feasibility	EPA’s motor vehicle standards shall be revised every 5 years after Jan 1, 2014 taking into account technological feasibility	Small businesses emitting below de minimis threshold (to be determined by state board)	
5.3 Individual Sources	Flexibility through borrowing from EPA against future allocations, Climate Change Credit Corporation, etc. Additionally, use of international credits from qualifying foreign programs and reduction credits from non-covered entities.		Sources may use allowances one year early and increase use of international credits	Controlled by GHG Credit Corporation		Applies to all	EPA given authority to grant emission allowances in cap-and-trade system to industries that have “experienced disproportionate adverse impacts as a result of (A) the transition to a lower carbon-emitting economy; or (B) global warming.” Allowances also allowed for to owners and operators of highly energy-efficient buildings, entities that will use the allowances to carry out geological sequestration, entities engaging in biological sequestration, to entities for use in carrying out projects to protect and restore ecosystems, and manufacturers producing

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							consumer produces that reduce global warming emissions.
7. Public Disclosure						Whether it will be part of reduction plan is within discretion of state board	
7.1 Req's	Generally, all information must be made publicly available, including a year-end report by the Administrator. Also, a "Lessons-Learned" report.		Creates national registry to track allowances, credits, transfers, compliance EPA must issue quarterly reports Sources: Must comply with monitoring; recordkeeping, reporting requirements listed in CFR And submit quarterly reports to EPA				Major stationary sources must report yearly, made available online by Administrator by March 1 of the year it is received, all EIS/EA's, Secretary of commerce and others must report to Congress on impact of not reducing emissions, If President declares an Emergency and alters regulations must go through public notice and comment, also President must report to Congress on findings from the Taskforce. All securities must report to their shareholders.
7.2 Exceptions/ Limitations	Anything impacting national security or the U.S. economy would suffer competitive harm as a result.		National security risks need not be disclosed (but must publish reasons why)				
3. Other Misc. Provisions carbon sequestration,	- Allowances for states to have stricter standards/emissions levels. - Joint ventures	Includes carbon sequestration program, securities climate risk	By 2015, EPA must review GHG reduction rate for 2020+ period In the event EPA finds that the price of allowances is			Carbon Sequestration In developing its reduction plan, the state board must consider sequestration as a possible method for reducing GHGs	Carbon sequestration is regulated; EPA is given authority to set up market-based carbon trading system; International policy to follow UN Framework on Climate

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<p>efficiency stds., renewable energy credits, research grants, etc.)</p>	<p>between industry and government</p> <ul style="list-style-type: none"> - Lending of government employees to private sector - PTO to review patent process to increase availability of CC technology. - Significant research grants and earmarks, including \$60M for abrupt climate change research. - Carbon sequestration program. - Renewable energy/resrch credits/assistance. 	<p>disclosure program</p>	<p>causing significant harm, sources may borrow against their own future allowances.</p> <p>Creates program for farmers, foresters, landowners to report/market GHG reductions and sequestration;</p> <p>Allocates credits to states for avoided land conversion</p> <p>Amends the Global change Research Act to create a list of priority research areas; creates program to develop new measurement tech. and promote their use</p> <p>EPA must create programs to encourage development of zero-emitting carbon tech., clean coal tech., energy efficiency tech.</p> <p>Also programs to assist communities disproportionately affected, and protect wildlife and natural resources.</p>				<p>Change, creates Research and Development Program w/ discretion to EPA.</p>
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