



## Summary of the Dingell-Boucher Discussion Draft

This document summarizes a discussion draft of a legislative proposal to reduce U.S. greenhouse gas (GHG) emissions. The discussion draft was released on October 7, 2008, by U.S. Representative John Dingell (D-Michigan), chairman of the U.S. House of Representatives Energy and Commerce Committee (E&C), and Rep. Rick Boucher (R-Virginia), chairman of the Energy and Air Quality subcommittee of E&C. These are the House committee and subcommittee with primary jurisdiction over the regulation of GHG emissions. (The discussion draft will be referred to as “Dingell-Boucher” in the rest of this document.)

Dingell-Boucher would, among other things, amend the federal Clean Air Act to establish a GHG cap-and-trade program at the U.S. Environmental Protection Agency (EPA). Under the cap-and-trade program, EPA would issue for each year from 2012 through 2050 a number of GHG emission “allowances,” each of which would entitle the bearer to emit one ton of GHG, measured in terms of carbon dioxide equivalence (CO<sub>2</sub>e)--its equivalence to the global warming effects of one ton of carbon dioxide. The number of allowances issued by EPA would decline each year, with the 2050 emissions cap being 25% of the 2012 emissions cap. EPA would distribute the allowances, either by providing them for free to certain entities or by selling them at auction. Any entity would be allowed to buy and sell allowances (the “trade” part of “cap-and-trade”). Each entity covered by the program would annually acquire and submit to EPA one allowance for each ton of GHG the entity emits or is otherwise responsible for during the year. Under this cap-and-trade program, EPA would thus limit the aggregate emissions of all covered entities but have no authority to limit the emissions of any one entity or dictate the use of technology to reduce emissions. These decisions would be left to each covered entity, as long as it could acquire sufficient allowances. (For more on cap-and-trade programs, please see the Pew Center brief *Cap and Trade 101* at [www.pewclimate.org/docUploads/Cap-Trade-101-02-2008.pdf](http://www.pewclimate.org/docUploads/Cap-Trade-101-02-2008.pdf)).

In addition to the cap-and-trade program, Dingell-Boucher would establish carbon capture and sequestration (CCS) performance standards for coal-burning power plants and direct EPA to issue standards for those significant industrial sources of GHG emissions not covered by the cap-and-trade program. The draft bill also presents several options for regulating the GHG emissions of motor vehicles.

Dingell-Boucher specifies which entities would be covered by the cap-and-trade program (see “Coverage” below); the number of allowances to be issued each year (“Targets and Timetables”); the method by which allowances would be distributed throughout the

economy (“Auctions and Allocations of Allowances”); measures to contain the costs of the cap-and-trade program (“Cost Containment”); measures intended to address the risk that the international competitiveness of certain covered entities might be affected by the program (“Competitiveness”); measures to ensure the proper operation of the market for allowances (“Carbon Market Oversight”); and several other important matters (“State-Federal issues, Early Action, and Complementary Measures”).

Dingell-Boucher intentionally contains a number of measures which are not finalized—including four options for allocating GHG emissions allowances under a cap-and-trade program, and three options for regulating GHG emissions from motor vehicles—in order to stimulate debate and input from Members of Congress and stakeholders. This summary denotes the provisional measures of Dingell-Boucher by placing them between square brackets [].

### **Coverage**

According to the staff of E&C, Dingell-Boucher would cover approximately 88% of all U.S. greenhouse gas (GHG) emissions. Compliance, however, would be phased in over ten years, with the emissions from different classes of sources coming in for compliance in different years.

In 2013, all electricity sources; producers and importers of liquid fuels whose combustion will emit more than 25,000 tons of carbon dioxide equivalent (CO<sub>2</sub>e); producers and importers of fluorinated gases (except hydrofluorocarbons); producers and importers of fossil-fuel based CO<sub>2</sub>; and geological sequestration sites would be required to submit allowances for their 2012 GHG emissions. The annual allowance submission requirement would continue for these entities for the duration of the program. Electricity sources would not be required to submit allowances for emissions resulting from the use of petroleum-based or coal-based liquid fuel; biomass; petroleum coke; or emissions resulting from the use of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), nitrogen trifluoride (NF<sub>3</sub>), or any other fluorinated gas that is a GHG purchased for use at that covered entity at that time.

In 2015, the following sectors would begin to submit allowances:

- Producers and manufacturers of: (i) adipic acid; (ii) primary aluminum; (iii) ammonia; (iv) cement, excluding grinding-only operations; (v) hydrochlorofluorocarbon (HCFC); (vi) lime; (vii) nitric acid; (viii) petroleum refining; (ix) phosphoric acid; (x) silicon carbide; (xi) soda ash; (xii) titanium dioxide.
- Manufacturers of acrylonitrile, carbon black, ethylene, ethylene dichloride, ethylene oxide, or methanol; or manufacturers of a petrochemical product not manufactured as of the date of enactment, if EPA determined that manufacturing that product results in annual process emissions of 25,000 or more tons of CO<sub>2</sub>e.
- Producers and manufacturers of ethanol, ferroalloy, glass, hydrogen, iron and steel, lead, kraft pulp and paper, zinc, and food processors that have emitted 25,000 or

- more tons of CO<sub>2</sub>e in 2008 or any subsequent year.
- Any fossil fuel-fired combustion device or grouping of such devices that: (i) is all or part of an industrial source not specified above; and (ii) has emitted 25,000 or more tons of CO<sub>2</sub>e in 2008 or any subsequent year.

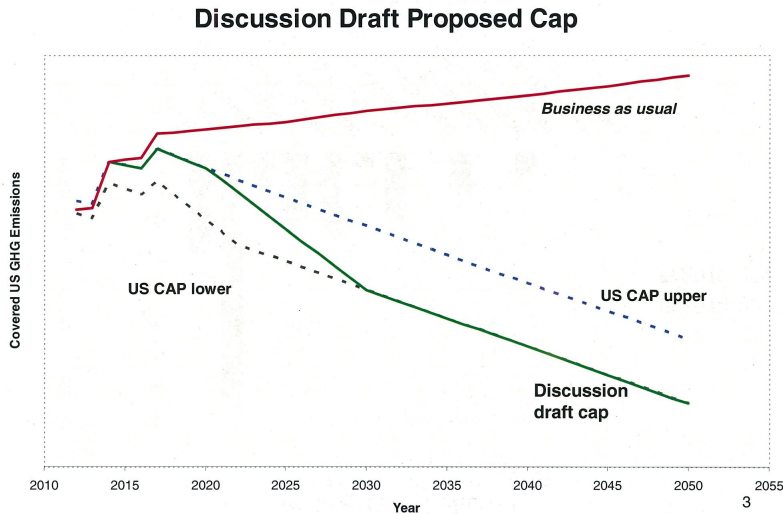
GHG emissions from combustion of natural gas would also be covered by requiring local distribution companies (LDCs) which deliver 46,000 cubic feet or more to hold and submit allowances. (While the bill text states the threshold as 460,000 cubic feet, E&C staff have informed the Pew Center that this was a drafting error that will be corrected in subsequent drafts.) However, the first compliance year for LDCs would be either 2018 or 2022, depending on national levels of commercial and residential use of natural gas.

HFCs would be covered by a separate cap-and-trade program and a tax. The draft would set an emissions baseline derived from the average annual importation and production of HFCs from 2004, 2005, and 2006, and a target range of reducing HFC emissions to [15%-20%] below the baseline by 2040.

**Targets and Timetables**

According to E&C staff, Dingell-Boucher would reduce U.S. GHG emissions to 6% below 2005 levels by 2020, 44% below 2005 levels by 2030, and 80% below 2005 levels by 2050.

Dingell-Boucher would allow the issuing of emissions allowances for 4.987 billion tons of CO<sub>2</sub>e in 2012, which would increase to a high of 6.167 billion tons in 2017, before decreasing to 5.796 billion in 2020, 4.617 billion in 2025, 3.436 billion in 2030, 2.335 billion in 2040, and 1.233 billion in 2050 and each year thereafter. Reflected in these totals is the fact that various entities are phased in to the program from 2012 through 2017, as well as the separate stream of allowances for natural gas LDCs, which is established beginning in 2017, as described above. The graph below, released by E&C committee staff, illustrates the emission reduction path in Dingell-Boucher:



## **Allocations and Auctions of Allowances**

Dingell-Boucher sets out four options for the distribution of allowance value—Options A, B, C, and D.

In each case, the detailed distribution of allowance value would continue only until 2025, after which time, unless Congress provides otherwise, all allowances would be auctioned and the revenues rebated to consumers.

Under **Option A**, the majority of allowances would be allocated to fossil-fuel-fired electricity LDCs, and a smaller proportion would be allocated to the industrial sector. In addition, allowances would be allocated to, among others, energy efficiency programs, clean technology development, and low-income consumers.

Under **Option B**, the industrial and electricity sectors would receive the majority of the allowances, but the industrial sector's allocation would increase and then steady over time, while the allocation to electricity LDCs would decline rapidly. Option B would give more allowances than Option A to energy efficiency programs, clean technology programs, and low-income consumers, among others, and would also introduce two new allowance recipients: consumers--including low- and non-low-income consumers--and "green jobs" programs.

Under **Option C**, the electricity sector and the industrial sector would still receive the majority of allowances, although the industrial sector would receive fewer allowances over the life of the program than electricity generators. Option C would allocate almost exactly the same percentages of allowances to clean technology development, and slightly more to energy efficiency programs and low-income consumers, as Option B. It would not allocate any allowances to non-low-income consumers, and is the only option which would allocate allowances to the national adaptation program. Option C would also allocate allowances for green jobs at the same level as Option B. In addition, Option C would allocate more allowances for the deficit reduction fund--which would deposit monies directly in the general fund of the Treasury--than would Options A or B.

**Option D**, unlike the other options, would not allocate allowances to the industrial sector, the electricity sector, or independent coal generators. Instead, consumers would be allocated half or nearly half of all allowances and would receive them in the form of climate change rebates and tax credits established by Dingell-Boucher. The allocation percentage to low-income consumers would be less than half of the percentages in the other options, and the deficit reduction fund, which would receive allocations under all options, would receive its largest allocation under Option D.

## **Cost containment**

Dingell-Boucher would allow full banking and trading of allowances, as well as limited borrowing.

In addition, covered entities would be allowed to use any combination of domestic or international offset credits according to the following chart:

Period	Percentage of compliance burden for which an entity may use offsets	Permissible mix of domestic and international offsets
2013-2017	5%	Any combination
2018-2020	15%	Any combination
2021-2024	30%	15% domestic/15% international
2025-beyond	35%	20% domestic/15% international

Dingell-Boucher would establish an initial list of eligible offset types, including below-ground coal mines, landfill, and manure methane projects, and reforestation/afforestation of acreage not forested as of January 1, 2008. EPA would have the authority to add additional categories of offsets.

Dingell-Boucher also would allow entities to use, without limit, international emissions allowances from foreign cap-and-trade systems for compliance, dependent on approval from EPA.

Dingell-Boucher would establish quarterly strategic reserve auctions (SRAs), open only to covered entities, in which EPA would sell allowances from a pool of 2.665 billion allowances drawn evenly from each year of the program (i.e., 2012 - 2050). EPA would set a minimum price at each SRA, starting at [\$20 to \$30] in 2012, increasing by 5% plus the rate of inflation for the SRAs held in 2013 and 2014. For the SRAs held in 2015 and each year thereafter, the minimum auction price would be [between 30% and 100%] above a rolling 36-month average of the daily closing spot price for that year's allowance vintage. There would be limits to the quantity of allowances which EPA could sell at each SRA—no more than a quantity equal to 5% of annual allowances issued for a given year could be sold in that year's SRAs. In addition, no entity would be allowed to purchase more than a quantity equal to 10% of their compliance obligation. Proceeds from the SRAs would be used by EPA to purchase international offset credits for international forest carbon activities.

## **Competitiveness**

Dingell-Boucher would establish an International Reserve Allowance Program and an International Climate Commission, which would create “covered” and “excluded” lists of countries and goods produced in them. Generally, these goods would be those whose

production is energy intensive and which are traded internationally. Importers of goods on the covered list would be required to submit a quantity of international reserve allowances (IRAs) to account for the unregulated GHGs generated in those goods' production. Goods from countries on the excluded list would not be subject to this requirement. Excluded countries would include those that have taken "comparable action" (as determined by the Commission) to regulate and reduce GHG emissions, as well as least-developed countries, and those countries whose total GHG emissions (including emissions from deforestation) do not exceed 0.5% of global GHG emissions.

The start date for the international reserve allowance program is not specified in Dingell-Boucher.

### **Carbon Market Oversight**

Dingell-Boucher would establish an Office of Carbon Market Oversight within the Federal Electricity Regulatory Commission (FERC) to be headed by a Director for Carbon Market Oversight. Dingell-Boucher would give FERC authority over all accounts, agreements, and transactions not subject to the jurisdiction of the Securities and Exchange Commission that involve emissions allowances, offset credits (the preceding are called "regulated allowances"), or a "regulated allowance derivative," which are puts, calls, futures contracts, and similar financial instruments whose value, in whole or in part, would be directly linked to the price of a regulated allowance or another regulated allowance derivative. FERC would also have authority over registering and regulating the participation of all trading entities. In addition, FERC would also have emergency authority to change trading rules or requirements, including suspending trading, for not more than 90 days. The President would have authority to countermand a suspension or terminate an ongoing suspension any other emergency action.

### **State-Federal issues, Early Action, and Complementary Measures**

Dingell-Boucher would pre-empt state and regional GHG cap-and-trade systems within the United States. Allowances would be allocated to compensate holders of GHG emission allowances issued by California or by the Regional Greenhouse Gas Initiative (RGGI, a program of ten Northeastern and Mid-Atlantic states), and for offset projects that commenced operations between January 1, 2002, and enactment. If EPA received more applications for early action credit allowances than would be available, EPA would be required to first compensate holders of California and RGGI allowances, whereupon it would have the discretion to establish ratios for distribution of allowances for offset projects.

Dingell-Boucher would also establish a carbon capture and sequestration (CCS) performance standard for coal plants: plants with a rated capacity of 25 megawatts or more, which derive at least 50% of their annual fuel input from any combination of coal

and/or pet-coke, and which are built on or after January 1, 2009, and commence operation prior to January 1, 2025, would be required to capture and geologically sequester not less than 60% of their total annual CO<sub>2</sub> emissions within 4 years of beginning operations. All plants built after 2025 would be required to meet the performance standard on the date they begin operation.

Dingell-Boucher presents various options for regulating GHG emissions from motor vehicles. One would allow California to apply its GHG tailpipe emissions standards; a second option would pre-empt states entirely from applying such standards and give EPA the authority to regulate GHG emissions from motor vehicles, as long as such regulations are consistent with federal vehicle fuel efficiency standards (known as Corporate Average Fuel Economy standards or CAFE); a third option, in addition to pre-empting the states, would not allow EPA to set any GHG tailpipe standards for vehicles for which CAFE standards already exist.

In addition, Dingell-Boucher would direct EPA to identify significant industrial sources of GHG emissions which are not already covered by the above-mentioned provisions in order to achieve coverage of at least 95% of GHG emissions from the industrial sector. EPA would be required to issue standards under the existing Clean Air Act known as “new source performance standards” (NSPS) for GHG emissions from these sources-- NSPS can apply to some modifications of existing sources, as well as new sources. In lieu of such standards, the Administrator is directed to issue a design, equipment, work practice, or operational standard for reducing GHG emissions, without regard to any determination of their feasibility. EPA would be required to issue these standards for not less than 25% of the listed categories within 3 years after enactment; not less than an additional 25% within 7 years; and standards for all listed categories not later than 10 years after enactment.