CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

Douglas W. Elmendorf, Director

July 7, 2010

Honorable John F. Kerry
United States Senate
Washington, DC 20510

Dear Senator:

As you requested, the Congressional Budget Office (CBO) and the staff of the Joint Committee on Taxation (JCT) have reviewed the discussion draft of the American Power Act, as released on May 12, 2010, with certain technical corrections and other changes subsequently provided to CBO by your staff. Included in those changes is a reduction in the size of the universal refund (section 3206) by amounts necessary to cover the cost of the low-income refund (section 3204).

American Power Act

The American Power Act would make a number of changes in energy and environmental policies largely aimed at reducing emissions of gases that contribute to global warming. The bill would limit or cap the quantity of certain greenhouse gases (GHGs) emitted from facilities that generate electricity and from other industrial activities beginning in 2013 or for certain entities by 2016. The Environmental Protection Agency (EPA) would establish two separate regulatory initiatives known as cap-and-trade programs—one covering emissions of most types of GHGs and one covering hydrofluorocarbons (HFCs). EPA would issue allowances to emit those gases under the cap-and-trade programs.

Some allowances issued by EPA would be auctioned by the federal government, and the remainder would be distributed to various recipients—including states, federal agencies, natural gas distributors, and local distribution companies—at no charge. A portion of an entity's compliance obligation under the GHG cap-and trade program could be met by purchasing domestic or international "offsets" in lieu of purchasing an allowance. Such offset credits could be generated by domestic or international projects that would sequester carbon or reduce GHG emissions that would not otherwise be covered by the cap. In addition, allowances would be set aside for purchase by petroleum refiners to cover GHG emissions from transportation fuels.

Other major provisions of the legislation would:

- Provide tax credits, cash rebates, or rebates on utility bills to lessen the impact on consumers or households of higher prices that would result from the cap-and-trade programs;

- Provide various financial incentives to increase generation of electricity from nuclear power;

- Establish a Carbon Storage Research Corporation to support research and development of technologies related to carbon capture and sequestration;

- Authorize federal receipts from Outer Continental Shelf oil and natural gas leasing activities to be shared with certain coastal states; and

- Establish an international reserve allowance program that would require importers to pay for and hold allowances to cover the carbon contained in U.S.-bound products. This program would be implemented if the President determines that such a program is necessary to control carbon emissions.

Estimated Cost to the Federal Government

CBO and JCT estimate that enacting this legislation would increase revenues by about $751 billion over the 2011-2020 period and direct spending by $732 billion over that 10-year period. In total, CBO and JCT estimate that enacting the legislation would reduce future deficits by about $19 billion over the 2011-2020 period (see the following table). CBO estimates that enacting this legislation would not increase the deficit in any of the four 10-year periods following 2020 because additional direct spending would be less than the additional net revenues attributable to the legislation in each of those periods.

CBO ESTIMATE OF THE BUDGETARY IMPACT OF THE MAY 12, 2010, DISCUSSION DRAFT OF THE AMERICAN POWER ACT, INCLUDING SUBSEQUENT CORRECTIONS AND CHANGES TO THAT DRAFT

	By Fiscal Year, in Millions of Dollars											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-2015	2011-2020
CHANGES IN REVENUES [a]												
Net Revenues Resulting from Cap-and-Trade Programs [b]	0	9.7	61.0	69.1	83.9	97.2	102.5	107.9	112.9	120.9	223.8	765.3
Increased Depreciation/Business Tax-Credit Use	0	*	-0.1	-0.4	-0.8	-1.3	-1.9	-2.6	-3.3	-3.7	-1.4	-14.1
Carbon Storage Research Corporation	0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	7.3	16.5
Nuclear Tax and Duty Provisions	-0.3	-0.7	-0.6	-0.5	-0.4	-0.4	-0.6	-0.9	-1.0	-1.3	-2.4	-6.6
Natural Gas Tax Provisions	*	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.7	-0.8	-1.0	-0.7	-4.1
Refundable Credit for Working Families Relief	0	0	*	-0.7	-0.7	-0.8	-1.0	-1.1	-1.2	-1.2	-1.5	-6.8
Universal Refund	0	0	0	0	0	0	0	0	0	0	0	0
International Reserve Program	0	0	0	0	0	0	0	0	0	0	0	0
Penalties	0	0	*	*	*	*	*	*	*	*	0.1	0.3
Total Estimated Revenues	-0.3	10.7	62.0	69.2	83.6	96.2	100.4	104.6	108.6	115.6	225.2	750.6
CHANGES IN DIRECT SPENDING												
Spending from Auction Proceeds												
Estimated Budget Authority	0	0.4	0.7	0.8	0.9	1.1	1.1	1.2	1.3	1.0	2.8	8.5
Estimated Outlays	0	0.1	0.3	0.5	0.6	0.8	0.9	1.0	1.1	1.1	1.6	6.6
Outlays Associated with Emission Allowances Freely Allocated												
Estimated Budget Authority	0	3.1	47.4	54.3	66.2	77.0	81.2	84.2	90.4	99.0	171.0	602.7
Estimated Outlays	0	3.1	47.4	54.3	66.2	77.0	81.2	84.2	90.4	99.0	171.0	602.7
Low-Income Energy Refund Program												
Estimated Budget Authority	0	0	6.2	8.6	9.1	11.8	13.2	13.8	14.6	15.5	23.9	92.8
Estimated Outlays	0	0	6.2	8.6	9.1	11.8	13.2	13.8	14.6	15.5	23.9	92.8
Carbon Storage Research Corporation												
Estimated Budget Authority	0	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	8.6	19.8
Estimated Outlays	0	0.6	1.4	1.9	2.1	2.1	2.1	2.1	2.1	2.2	5.9	16.6
Payment of Refundable Credit for Working Families												
Estimated Budget Authority	0	0	0	1.1	1.2	1.2	1.6	1.7	1.8	1.9	2.3	10.4
Estimated Outlays	0	0	0	1.1	1.2	1.2	1.6	1.7	1.8	1.9	2.3	10.4

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	By Fiscal Year, in Millions of Dollars											
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2011-2015	2011-2020
CHANGES IN DIRECT SPENDING (Continued)												
OCS Leasing and Revenue Sharing												
Estimated Budget Authority	0	0	*	*	*	0.1	0.2	0.3	0.3	0.4	0.1	1.4
Estimated Outlays	0	0	*	*	*	0.1	0.2	0.3	0.3	0.4	0.1	1.3
Nuclear Power Generation												
Estimated Budget Authority	0.5	0	0	0	0	0	0	0	0	0	0.5	0.5
Estimated Outlays	0.0	*	*	*	*	*	0.1	0.1	0.1	0.1	*	0.3
Grants for Nuclear Facilities in Lieu of Tax Credits												
Estimated Budget Authority	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0	0.8
Estimated Outlays	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0	0.8
Total Changes												
Estimated Budget Authority	0.5	5.4	56.5	67.1	79.6	93.4	99.7	103.6	110.8	120.1	209.2	736.9
Estimated Outlays	0	3.8	55.4	66.4	79.2	93.0	99.4	103.4	110.6	120.2	204.8	731.5
NET INCREASE OR DECREASE (-) IN THE BUDGET DEFICIT FROM CHANGES IN DIRECT SPENDING AND REVENUES												
Impact on Deficit [c]	0.3	-7.0	-6.6	-2.8	-4.4	-3.2	-0.9	-1.2	2.0	4.6	-20.4	-19.1
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Estimated Authorization Level	0.6	1.9	4.2	4.6	6.4	6.7	7.0	8.6	8.7	8.8	17.6	57.5
Estimated Outlays	0.1	0.7	2.2	3.5	4.8	5.9	6.5	7.4	8.2	8.6	11.3	48.0

Sources: Congressional Budget Office and staff of the Joint Committee on Taxation.

Notes: *= between -$50 million and $50 million; OCS = Outer Continental Shelf.
Components may not sum to totals because of rounding.

a. Does not include revenue effects of the Coal-Fueled Fleet Transition Program in section 1441 because that section of the draft legislation is incomplete.

b. Revenues are net of income and payroll tax offsets.

c. Positive numbers indicate increases in deficits; negative numbers indicate decreases in deficits.

The impact on revenues of the American Power Act over the next 10 years would largely result from the revenues collected from the GHG and HFC cap-and-trade programs net of reductions in revenues from income and payroll taxes. A small amount of additional revenue would be generated by assessments levied by the Carbon Storage Research Corporation and from penalties collected for noncompliance. The net revenue generated by the cap-and-trade programs over this period would be offset by various tax credits, including credits to support the generation of nuclear power, a refundable credit for working families, and expanded use of existing tax benefits that promote renewable energy technologies. In addition, beginning in 2026, JCT estimates that the universal refund program, which provides financial assistance to households, would further reduce revenues. CBO also estimates that the international reserve allowance program would generate additional revenues beginning in 2021, assuming such a program is established by the President.

Estimated direct spending over the next 10 years under the legislation would primarily stem from the imputed value of the emission allowances freely allocated[1] and from providing low-income energy refunds and refundable tax-credit payments to certain households. Additional outlays would result from spending of the assessments levied by the Carbon Storage Research Corporation and sharing federal receipts from petroleum leasing activities in the Outer Continental Shelf with states.

In addition, assuming appropriation of the necessary amounts, CBO estimates that implementing this legislation would increase discretionary spending by about $48 billion over the 2011-2020 period. Most of that amount would stem from the spending of revenues from the auction of GHG and HFC allowances. Additional spending also would result from spending to support federal agencies' costs to administer programs established under the bill.

[1] CBO assumes that freely distributing allowances under this legislation would be essentially equivalent to distributing cash grants. Thus, CBO treats such transactions as additional federal outlays. At the same time, those allowances would be valuable financial instruments so CBO records the creation of allowances by the federal government as an increase in revenues. For more information, see www.cbo.gov for CBO's June 5, 2009, cost estimate for H.R. 2454, and CBO's December 16, 2009, cost estimate for S. 1733.

Estimated Allowance Prices

The key component to estimating the budgetary impacts of a GHG cap-and-trade program is estimating the allowance price. The most important assumptions affecting the allowance price involve:

- Projections of GHG emissions under current law;
- The responsiveness of households and firms to changes in the cost of emissions;
- The discount rate that allowance holders apply to decisions about whether to bank allowances;
- The availability of qualified offset credits from domestic and international sources; and
- The development and adoption of technologies, such as nuclear power or carbon capture and storage systems, that produce electricity and reduce emissions of GHGs.

As discussed in CBO's previous cost estimates, differences in those assumptions can dramatically affect the estimated allowance price and the resulting impact on the budget.

Under the American Power Act, CBO estimates that GHG allowance prices would be slightly lower than the prices estimated under H.R. 2454 as passed by the House of Representatives on June 26, 2009, and S. 1733 as ordered reported by the Senate Committee on Environmental Public Works on November 5, 2009. CBO estimates that the allowance price under the American Power Act would be about $14 in 2012 and would increase to about $25 by 2020. (We estimated that prices under H.R. 2454, as passed, and S. 1733, as ordered reported, would be about $16 and $18 in 2012, respectively; by 2020, prices would increase to about $28 and $33, respectively.)

Prices under the American Power Act differ from prices under the other two pieces of legislation for a number of reasons. Specifically, CBO updated the model we use to estimate allowance prices to reflect new estimates from EPA and the Energy Information Administration of future

GHG emissions under current law. In addition, CBO updated the model of allowance prices to reflect provisions in the bill that, compared with those other pieces of legislation, would:

- Provide more support for the use of nuclear energy to generate electricity;

- Provide less funding for certain energy-efficiency programs and support for the development of international offsets;

- Reduce the responsiveness of certain electricity consumers to allowance prices, and change the timing of emissions reductions from petroleum refiners; and

- Make it more difficult for uncovered entities to hold or trade allowances.

Previous CBO Estimates

CBO's estimate of the American Power Act is the third estimate we have provided for climate change legislation during the 111th Congress.

On June 26, 2009, CBO transmitted a cost estimate for H.R. 2998, the American Clean Energy and Security Act of 2009, as reported by the House Committee on Rules on June 26, 2009. That legislation was subsequently amended and passed by the House of Representatives as H.R. 2454. CBO and JCT estimated that over the 2010-2019 period, that legislation would increase federal revenues by about $873 billion and increase direct spending by about $864 billion, reducing budget deficits over that period by about $9 billion. CBO did not complete an estimate of H.R. 2454's impact on discretionary spending.

On December 16, 2009, CBO transmitted a cost estimate for S. 1733, the Clean Energy Jobs and American Power Act, as ordered reported by the Senate Committee on Environment and Public Works. CBO and JCT estimated that over the 2010-2019 period, that legislation would increase federal revenues by about $854 billion and increase direct spending by about $833 billion, reducing budget deficits over that period by about $21 billion. CBO also estimated that enacting S. 1733 would increase discretionary spending by about $29 billion over the 2010-2019 period.

All three pieces of legislation include provisions to:

- Establish two separate regulatory initiatives known as cap-and-trade programs—one covering emissions of most types of GHGs and one covering HFCs;

- Establish a Carbon Storage Research Corporation to support research and development of technologies related to carbon capture and sequestration; and

- Provide financial assistance to certain households to offset the impact of higher energy prices through rebates or tax credits.

Regarding the GHG cap-and-trade program, all three pieces of legislation include roughly the same caps on emissions, roughly cover the same entities, and allow for about the same amount of total offsets used to satisfy compliance.

The American Power Act, however, includes several provisions that were not included in the previous legislation. Those provisions include:

- Financial incentives to increase nuclear power generation including regulatory risk insurance, accelerated depreciation for nuclear plants, and loan guarantees; and

- Sharing revenues from Outer Continental Shelf oil and natural gas leasing with certain coastal states;

Over the 2011-2015 period, those provisions of the American Power Act would increase the budget deficit by about $8 billion.

If you wish further details on these estimates, we will be pleased to provide them. The CBO staff contact is Susanne S. Mehlman.

Sincerely

Douglas W. Elmendorf

Douglas W. Elmendorf
Director

Enclosure

cc: Honorable Barbara Boxer
Chairman
Committee on Environment and Public Works

Honorable James M. Inhofe
Ranking Member

Honorable Henry A. Waxman
Chairman
House Committee on Energy and Commerce

Honorable Joe Barton
Ranking Member

Identical letter sent to the Honorable Joseph I. Lieberman.