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Analysis of the American Power Act: Protections for Electricity Consumers

The production of electricity is responsible for a substantial share of U.S. greenhouse gas emissions—more than any other sector of the economy. Therefore, the measures proposed in federal climate change legislation to protect electricity consumers during the transition to a low-carbon energy system merit special attention by policymakers. The discussion that follows provides an analysis of the American Power Act of 2010 and the measures it includes to reduce the impact on electric utility bills.

The recently proposed American Power Act—released by Senators Kerry and Lieberman—contains several provisions aimed at helping consumers and businesses manage the transition to a low carbon economy. The primary approach to protect *electricity customers* is to allocate “emissions allowances” to local electric companies—known as local distribution companies (LDCs)—to use for the benefit of their customers, including households, small businesses, commercial building owners, and industrial facilities.

This paper explains the mechanics of the LDC allocation and calculates the extent to which the American Power Act would help to mitigate the costs of a carbon cap for the average American household.

LDC Allocation

The American Power Act establishes a cap on electric sector greenhouse gas emissions beginning in 2013, effectively pricing carbon into the cost of electricity. Title III (Consumer Protection) of the bill would establish a program to help offset the electricity price impacts due to the carbon price by allocating emissions allowances to electric local distribution companies. A local distribution company is a utility that has a legal, regulatory, or contractual obligation to deliver electricity to retail customers. Local distribution companies would use the emissions allowances to provide rebates to their customers under the oversight of state regulatory authorities.

As stated in Title III of the bill: *“Emission allowances distributed to an electricity local distribution company under this subsection— (I) shall be used exclusively for the benefit of the retail ratepayers of the electricity local distribution company; and (II) may not be used to support electricity sales or deliveries to individuals or entities other than those ratepayers.”*

All ratepayer classes—residential, commercial, and industrial—would benefit from the rebates: *“(B) In using emission allowances distributed under this subsection for the benefit of ratepayers, an electricity local distribution company shall ensure that ratepayer benefits are distributed—(i)*

among ratepayer classes on a pro rata basis, based on electricity deliveries to each class; and (ii) equitably among individual ratepayers within each ratepayer class.”

To ensure that electricity customers benefit from the LDC allocation, the American Power Act requires that state public utility commissions, or other entities responsible for setting retail rates, approve the LDC’s plans for returning the allowance value to its customers. LDCs would also submit annual reports on their handling of their allowances, and EPA would have the authority to audit a representative sample of LDCs:

“(A) REQUIREMENT.—No electricity local distribution company shall be eligible to receive emission allowances under this subsection unless the State regulatory authority with authority over the retail rates of the electricity local distribution company, or the entity with authority to regulate or establish retail electricity rates of an electricity local distribution company not regulated by a State regulatory authority, has— (i) after public notice and an opportunity for comment, promulgated a regulation or completed a rate proceeding (or the equivalent, in the case of a ratemaking entity other than a State regulatory authority) that provides for the full implementation of the requirements of paragraph (5); and (ii) made available to the Administrator and the public a report describing, in adequate detail, the manner in which the requirements of paragraph (5) will be implemented.”

Estimated Bill Impacts

The following analysis examines the extent to which the LDC allocations under the American Power Act would mitigate the electricity price impacts associated with the bill.

The impacts on a customer’s electric bill depend on three variables: (1) the CO₂ price; (2) the total number of allowances available for rebates; and (3) the methodology used to apportion the allowance value among individual LDCs.

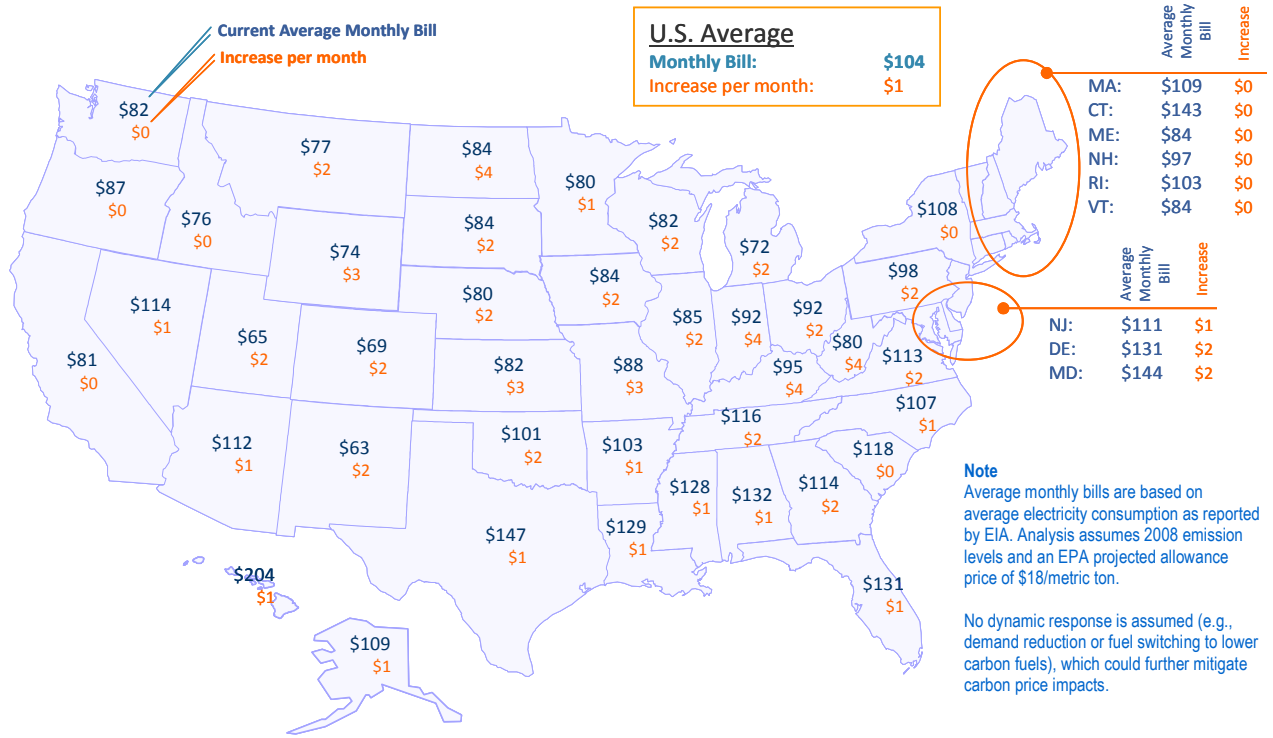
For the purposes of this analysis, we assume: a price of \$18 per metric ton of CO₂ (2009\$), as forecasted by the U.S. Environmental Protection Agency (EPA) in its economic analysis of the American Power Act dated June 14, 2010; the LDC allocation specified in the American Power Act (i.e., 2.1 billion metric tons in 2013); and the allocation formula specified in the American Power Act (i.e., 75% based on emissions, and 25% based on delivered electricity).

Note that we hold average household electricity consumption constant in calculating the bill impacts. To the extent that households reduce their electricity consumption, for example through energy efficiency investments, the impacts of the carbon price would be further mitigated.

As illustrated on the map below, the projected bill impacts range from \$0 to \$4 per month, depending on the state. On average, across the U.S., the increase would be less than \$1 per month in 2013. In contrast, if no LDC allocation were provided, the average residential electric bill in Indiana, for example, would increase by \$19 per month.

LDC Allocation Limits Electricity Price Increases

Assuming EPA Projected Allowance Price of \$18/metric ton and 75/25 Allocation Formula for Electric Local Distribution Companies



2013

State	Current Average Retail Electricity Rate (cents/KWh)	Current Monthly Residential Bill (\$/month)	Monthly Increase (\$/month)	% Increase
Alabama	10.4	\$132	\$1	1%
Alaska	16.5	\$109	\$1	1%
Arizona	10.3	\$112	\$1	1%
Arkansas	9.3	\$103	\$1	1%
California	13.8	\$81	\$0	0%
Colorado	10.1	\$69	\$2	2%
Connecticut	19.5	\$143	\$0	0%
Delaware	13.9	\$131	\$2	1%
Florida	11.7	\$131	\$1	1%
Georgia	9.9	\$114	\$2	2%
Hawaii	32.5	\$204	\$1	1%
Idaho	7.0	\$76	\$0	0%
Illinois	11.1	\$85	\$2	2%
Indiana	8.9	\$92	\$4	4%
Iowa	9.5	\$84	\$2	3%
Kansas	8.9	\$82	\$3	3%
Kentucky	7.9	\$95	\$4	5%
Louisiana	10.3	\$129	\$1	1%
Maine	16.2	\$84	\$0	0%
Maryland	13.8	\$144	\$2	1%
Massachusetts	17.7	\$109	\$0	0%
Michigan	10.7	\$72	\$2	2%
Minnesota	9.7	\$80	\$1	2%
Mississippi	10.4	\$128	\$1	1%
Missouri	8.0	\$88	\$3	4%
Montana	9.1	\$77	\$2	2%

State	Current Average Retail Electricity Rate (cents/KWh)	Current Monthly Residential Bill (\$/month)	Monthly Increase (\$/month)	% Increase
Nebraska	7.9	\$80	\$2	3%
Nevada	11.9	\$114	\$1	1%
New Hampshire	15.7	\$97	\$0	0%
New Jersey	15.7	\$111	\$1	1%
New Mexico	10.0	\$63	\$2	3%
New York	18.3	\$108	\$0	0%
North Carolina	9.5	\$107	\$1	1%
North Dakota	7.5	\$84	\$4	5%
Ohio	10.1	\$92	\$2	2%
Oklahoma	9.1	\$101	\$2	2%
Oregon	8.5	\$87	\$0	0%
Pennsylvania	11.4	\$98	\$2	2%
Rhode Island	17.4	\$103	\$0	0%
South Carolina	9.9	\$118	\$0	0%
South Dakota	8.3	\$84	\$2	2%
Tennessee	8.9	\$116	\$2	2%
Texas	13.0	\$147	\$1	1%
Utah	8.3	\$65	\$2	4%
Vermont	14.5	\$84	\$0	0%
Virginia	9.6	\$113	\$2	1%
Washington	7.5	\$82	\$0	0%
West Virginia	7.1	\$80	\$4	5%
Wisconsin	11.5	\$82	\$2	2%
Wyoming	8.2	\$74	\$3	5%
U.S. Total	11.3	\$104	\$1	1%