

**EPA was asked to provide technical assistance on the following questions. EPA's responses are provided below the questions.**

*Do you have any analysis of the effects of distributing allowances to utilities based on W-M formula vs. based 100% on emissions vs. 100% load (any regional/state break-down; any calculations of %age of emissions covered)? I understand EEI might have some of this too. I believe this is what my boss discussed with the Administrator, and is the issue my boss is hearing a lot about from the state. And what is the Agency's read on often over-looked insertion before House floor vote that appears to prevent a utility from receiving more allowances than its emissions? Does EPA agree that this language trumps the formula and would in fact prevent windfalls for major energy producers of low-carbon emitting sources (e.g., nuclear)? There seems to be a split interpretation of this restriction.*

## **EPA RESPONSES:**

### **Allocation Estimates**

Estimates for state allocations are included in Table 1. Note that these are rough estimations based on the best currently available data, described in more detail below. Actual allocations will be different, since the owner or operator of each LDC has the ability to define their baseline as a period of any 3 consecutive years from 1999-2008. Furthermore, this analysis does not consider the impact of new coal generation built prior to 2013.

Only 2012 allocations are presented, as the following years will change proportionately (absent updating based on number of customers). In 2012, LDC allocations are equal to 43.75% of the total allowance pool after 1% of allowances are withheld for strategic reserve auctions. We assume the maximum allocation to merchant coal generators (10% of LDC allocations, phasing out over time), and withhold that value from these estimates.

Delivery estimates are based on sales reported in EIA 861, taking the average of 2006 and 2007 total retail sales by distribution company.

Emissions were estimated using the average of 2006 and 2007 EIA 861 retail sales by delivery state and applying EPA eGRID regional emission factors. These emission values are rough estimates, since the emission factors are based on large geographic regions (see figure 1), and were calculated using available 2005 emission and generation data.

### **Prohibition against excess distributions in Sec. 783(b)(4)**

The language prohibiting distribution of more allowances than "necessary to offset any increased electricity costs to [the electric distribution company's] retail ratepayers, including increased costs attributable to purchased power costs, due to enactment of this title" does take precedence over, and sets a limitation on each electric distribution company's [LDC's] annual distribution of allowances under, the language establishing an allowance distribution methodology based on LDC emissions and deliveries. This is because the prohibition language states that the prohibition applies "notwithstanding" the distribution methodology language.

However, the prohibition provision would be very difficult to implement because it would require a great deal of speculation. First, the Administrator would need to determine (either through projection before the year for which allowances are distributed or through actual data after the year for which allowances are distributed) the total cost of the electricity distributed to its customers each year starting with 2012. Second, the Administrator would need to estimate (again either up front or after the year of the allowance distribution) what each LDC's total cost of electricity would be each year in the absence of the ACES GHG cap and trade program. Total electricity costs would depend on a number of factors that would have to be projected, including the sources and amounts of purchased power, the mix of generation of purchased and LDC generated power, fuel costs, technology advancements (e.g., in generation), transmission constraints, and electricity demand. Any attempt to remove the impact of the cap and trade program on these factors and thus on total electricity costs would be speculative at best. The Administrator might also have to consider the ability of each LDC to pass through these costs to its customers. The difference between these two total cost figures for a given year, divided by the market value of an allowance for that year, would be the limitation on the amount of allowances that an LDC could be distributed for that year. The limitation could be implemented by limiting up front the distribution or by requiring the LDC to return later to the Administrator any amount of allowances in excess of the limitation. The excess allowances would be redistributed to other LDCs, but an iterative process would be required to ensure that the redistribution of excess allowances would not increase any LDC's total allowance distribution above that LDC's limitation. EPA notes that the prohibition provision could reward higher costs to LDC retail ratepayers in that the higher the level of an LDC's costs, the higher the limitation on the LDC's allowance distribution.

Table 1. Allocation Estimates by Delivery State

		2012 Allocation (Million Tons)					2012 Allocation (Million Tons)		
Delivery State	Annual Emissions Estimate (Million Tons)*	HR 2454 Formula (50/50 Emission /Load)	100% Emissions-Based	100% Load-Based	Delivery State	Annual Emissions Estimate (Million Tons)*	HR 2454 Formula (50/50 Emission /Load)	100% Emissions-Based	100% Load-Based
AK	3	3	3	3	MT	6	6	5	7
AL	62	47	50	44	NC	67	58	54	62
AR	26	22	21	23	ND	10	7	8	6
AS	0	0	0	0	NE	23	16	19	13
AZ	45	36	36	36	NH	5	5	4	5
CA	87	99	70	127	NJ	41	36	33	39
CO	43	30	35	24	NM	14	11	11	11
CT	14	14	11	16	NV	19	16	15	17
DC	6	5	5	6	NY	57	58	46	69
DE	6	5	5	6	OH	110	82	89	76
FL	138	111	112	111	OK	41	30	33	27
GA	92	70	74	66	OR	20	20	16	23
GU	1	1	1	1	PA	84	70	68	72
HI	8	6	7	5	PR	14	11	11	10
IA	36	25	29	21	RI	3	3	3	4
ID	10	9	8	11	SC	42	37	34	39
IL	107	78	87	70	SD	9	6	7	5
IN	75	56	61	52	TN	72	54	58	51
KS	35	24	29	19	TX	205	165	166	164
KY	62	47	50	44	UT	11	11	9	13
LA	42	36	34	38	VA	61	51	49	53
MA	24	23	19	27	VI	1	0	0	0
MD	35	29	28	31	VT	2	2	2	3
ME	5	5	4	6	WA	35	35	28	41
MI	77	57	62	52	WI	55	39	44	34
MN	56	39	45	33	WV	23	17	19	16
MO	70	49	57	40	WY	8	7	7	7
MS	29	23	24	23	Total	2,234	1,802	1,802	1,802

\* Estimate calculated using 2006-2007 retail sales and eGRID emission factors

Figure 1. eGRID Emission Factor Regions

