

In the Matter of the Investigation into Environmental and Socioeconomic Costs, Docket Nos. E-999/CI-93-583 and E-999/CI-00-1636

**UPDATED ENVIRONMENTAL EXTERNALITY VALUES UPDATED THROUGH 2010**

In its May 3, 2001 Order Updating Externality Values and Authorizing Comment Periods On CO2, PM2.5, And Application of Externality Values To Power Purchases, Docket No. E-999/CI-00-1636, the Commission used the Gross Domestic Product (GDP) Price Deflator Index to update the externality values adopted in its July 3, 1997 Order in Docket No. E-999/CI-93-583, and indicated that the values will continue to be updated as data becomes available from that index.

The environmental externality values below have been updated using the 2010 GDP Deflator index values published by the United States Department of Commerce on May 26, 2011.

Questions regarding this matter may be directed to [Marc Fournier](#) at (651) 201-2214.

**URBAN**

	Original (1995 \$/ton)		Inflation Adjusted Values GDIPI (2010 \$/ton)	
	Range of Values		Range of Values	
	Low	High	Low	High
<b>SO2</b>	112	189	0	0
<b>PM10</b>	4462	6423	6068.32	8735.28
<b>CO</b>	1.06	2.27	1.44	3.09
<b>NOx</b>	371	978	505.56	1330.08
<b>Pb</b>	3131	3875	4258.16	5270
<b>CO2</b>	0.3	3.1	0.41	4.22

**METROPOLITAN FRINGE**

	Original (1995 \$/ton)		Inflation Adjusted Values GDPI (2010 \$/ton)	
	Range of Values		Range of Values	
	Low	High	Low	High
<b>SO2</b>	46	110	0	0
<b>PM10</b>	1987	2886	2702.32	3925
<b>CO</b>	0.76	1.34	1.03	1.82

<b>NOx</b>	140	266	190.40	362
<b>Pb</b>	1652	1995	2246.72	2713
<b>CO2</b>	0.3	3.1	0.41	4.22

Environmental Externality values have been updated using United States Department of Commerce, Bureau of Economic Analysis 2010 Price Indexes for Gross Domestic Product (Table 1.1.4) released May 26, 2011. The index has been rebased with 2000 as the base year.

## RURAL

	Original (1995 \$/ton)		Inflation Adjusted Values GDPI (2010 \$/ton)	
	Range of Values		Range of Values	
	Low	High	Low	High
<b>SO2</b>	10.00	25.00	0.00	0.00
<b>PM10</b>	562.00	855.00	764.32	1162.80
<b>CO</b>	0.21	0.41	0.29	0.56
<b>NOx</b>	18.00	102.00	24.48	138.72
<b>Pb</b>	402.00	448.00	546.72	609.28
<b>CO2</b>	0.30	3.10	0.41	4.22

## WITHIN 200 MILES OF MINNESOTA

	Original (1995 \$/ton)		Inflation Adjusted Values GDPIPD (2010 \$/ton)	
	Range of Values		Range of Values	
	Low	High	Low	High
<b>SO2</b>	10.00	25.00	0.00	0.00
<b>PM10</b>	562.00	855.00	764.32	1162.80
<b>CO</b>	0.21	0.41	0.29	0.56
<b>NOx</b>	18.00	102.00	24.48	138.72
<b>Pb</b>	402.00	448.00	546.72	609.28
<b>CO2</b>	0.00	0.00	0.00	0.00

**NOTE REGARDING THE USE OF SO2 VALUES:** In the January 3, 1997 Order Establishing Environmental Cost Values the Commission found that SO2 damages would be internalized after 2000 and applying externality costs would be unwarranted.

**NOTE REGARDING THE USE OF CARBON DIOXIDE VALUES:** In its June 3, 2011 Order Establishing 2011 Estimate of Future Carbon Dioxide Regulation Costs, pursuant to Minn. Stat. §216H.06, in Docket No. E-999/CI-07-1199 the Commission established an estimate of the likely range of costs of future carbon dioxide regulation on electricity generation of \$9/ton to \$34/ton for CO2 emitted in 2012 and thereafter. This range of values will be updated annually. A utility need not apply the CO2 externality values in the above tables established pursuant to Minn. Stat. §216B.2422, subd. 3, in any year to which the utility applies the CO2 costs derived pursuant to Minn. Stat. §216H.06.