Cascade Policy Institute
OREGON

Testimony of John A. Charles, Jr.
Before the House Environment and Energy Committee
Regarding SB 324-A, *Low Carbon Fuel Standards*

February 24, 2015

My name is John Charles, and I am President & CEO of Cascade Policy Institute (CPI). Cascade is a non-profit policy research center based in Portland.

It is unclear to me why this bill has been introduced. The carbon intensity of driving has been steadily declining since at least 1975. The attached data table and chart from the 2014 EPA report on this subject shows that in 1975, the CO2 emissions from light-duty vehicles averaged 681 g/mi. By 2014, that had dropped to 367 g/mi, ***a 47% decline.*** If carbon intensity of driving is a problem, it is steadily disappearing on its own.

Also attached is a chart depicting "greenhouse gas" trends in Oregon since 1990. As you can see, transportation-related emissions peaked around 2007 and have been dropping ever since.

These trends mimic the trends of ambient levels of ground-level ozone, CO, and fine particulate (PM-10), which are actual regulated pollutants – unlike CO2, which is a harmless gas that has never been one of the six "criteria pollutants" regulated by the Clean Air Act. Attached are charts from both DEQ and Lane Regional Air Pollution Authority documenting the spectacular improvement in air quality since 1985.

SB 324-A appears to be a solution in search of a problem. Moreover, passage of the bill would cause collateral damage to another priority of legislative leadership, namely a transportation finance package. Oregon roads need more investment, but SB 324 generates no money for that purpose – despite raising the price of fuel. If the bill passes, a gas tax increase is unlikely.

Which policy objective is more important: a purely symbolic victory related to global warming, or better roads?

We don't have an air pollution crisis. In fact, the air has never been cleaner in the history of the state. I'd suggest you table this bill and turn your attention to other concerns.

Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2014

Report

EPA United States Environmental Protection Agency

EPA-420-R-14-023a October 2014

Table 2.1

Adjusted CO_2 Emissions, Adjusted Fuel Economy, and Key Parameters by Model Year[1, 2]

New Gasoline and Diesel Vehicles									Alternative Fuel Vehicle Share of All Vehicle Production
Model Year	Production (000)	Adj CO_2 (g/mi)	Adj Fuel Economy (MPG)	Weight (lb)	HP	Footprint (sq ft)	Car Production	Truck Production	
1975	10,224	681	13.1	4060	137	-	80.7%	19.3%	0.0%
1976	12,334	625	14.2	4079	135	-	78.9%	21.1%	0.0%
1977	14,123	590	15.1	3982	136	-	80.1%	19.9%	0.0%
1978	14,448	562	15.8	3715	129	-	77.5%	22.5%	0.0%
1979	13,882	560	15.9	3655	124	-	77.9%	22.1%	0.0%
1980	11,306	466	19.2	3228	104	-	83.5%	16.5%	0.0%
1981	10,554	436	20.5	3202	102	-	82.8%	17.2%	0.0%
1982	9,732	425	21.1	3202	103	-	80.5%	19.5%	0.0%
1983	10,302	426	21.0	3257	107	-	78.0%	22.0%	0.0%
1984	14,020	424	21.0	3262	109	-	76.5%	23.5%	0.0%
1985	14,460	417	21.3	3271	114	-	75.2%	24.8%	0.0%
1986	15,365	407	21.8	3238	114	-	72.1%	27.9%	0.0%
1987	14,865	405	22.0	3221	118	-	72.8%	27.2%	0.0%
1988	15,295	407	21.9	3283	123	-	70.9%	29.1%	0.0%
1989	14,453	415	21.4	3351	129	-	70.1%	29.9%	0.0%
1990	12,615	420	21.2	3426	135	-	70.4%	29.6%	0.0%
1991	12,573	418	21.3	3410	138	-	69.6%	30.4%	0.0%
1992	12,172	427	20.8	3512	145	-	68.6%	31.4%	0.0%
1993	13,211	426	20.9	3519	147	-	67.6%	32.4%	0.0%
1994	14,125	436	20.4	3603	152	-	61.9%	38.1%	0.0%
1995	15,145	434	20.5	3613	158	-	63.5%	36.5%	0.0%
1996	13,144	435	20.4	3659	164	-	62.2%	37.8%	0.0%
1997	14,458	441	20.2	3727	169	-	60.1%	39.9%	0.0%
1998	14,456	442	20.1	3744	171	-	58.3%	41.7%	0.0%
1999	15,215	451	19.7	3835	179	-	58.3%	41.7%	0.0%
2000	16,571	450	19.8	3821	181	-	58.8%	41.2%	0.0%
2001	15,605	453	19.6	3879	187	-	58.6%	41.4%	0.0%
2002	16,115	457	19.5	3951	195	-	55.3%	44.7%	0.0%
2003	15,773	454	19.6	3999	199	-	53.9%	46.1%	0.0%
2004	15,709	461	19.3	4111	211	-	52.0%	48.0%	0.0%
2005	15,892	447	19.9	4059	209	-	55.6%	44.4%	0.0%
2006	15,104	442	20.1	4067	213	-	57.9%	42.1%	0.0%
2007	15,276	431	20.6	4093	217	-	58.9%	41.1%	0.0%
2008	13,898	424	21.0	4085	219	48.9	59.3%	40.7%	0.0%
2009	9,315	397	22.4	3914	208	48.1	67.0%	33.0%	0.0%
2010	11,110	394	22.6	4002	214	48.6	62.7%	37.3%	0.0%
2011	12,003	398	22.4	4127	230	49.5	57.8%	42.2%	0.1%
2012	13,438	376	23.6	3977	222	48.8	64.4%	35.6%	0.4%
2013	14,846	369	24.1	4015	227	49.2	63.2%	36.8%	0.7%
2014 (prelim)	-	*367*	*24.2*	*4072*	*233*	*49.2*	*61.3%*	*38.7%*	-

[1] Adjusted CO_2 and fuel economy values reflect real world performance and are not comparable to automaker standards compliance levels. Adjusted CO_2 values are, on average, about 25% higher than the unadjusted, laboratory CO_2 values that form the starting point for GHG standards compliance, and adjusted fuel economy values are about 20% lower, on average, than unadjusted fuel economy values.

[2] 0-to-60 Time has been deleted from this table; see Section 3.D for a new methodology for calculating 0-to-60 acceleration time.

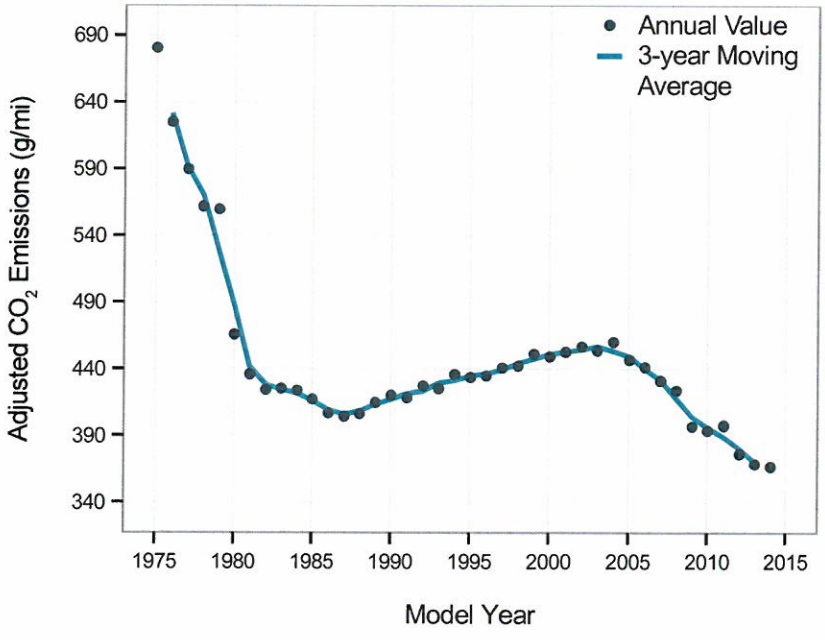
C. Overview of Long-Term Trends

While the most recent annual changes often receive the most public attention, the greatest value of the Trends database is to document long-term trends. This is because: 1) year-to-year variability can reflect short-term trends (two examples are the Cash for Clunkers rebates in 2009 and the impact of the tsunami aftermath on Japan-based manufacturers in 2011) that may not be meaningful from a long-term perspective, and 2) the magnitude of year-to-year changes in annual CO_2 emissions and fuel economy tend to be small relative to longer, multi-year trends.

Figures 2.1 and 2.2 show fleetwide adjusted CO_2 emissions and fuel economy from Table 2.1 for MY 1975-2014. For both figures, the individual data points represent annual values, and the curves represent 3-year moving averages (where each year represents the average of that model year, the model year prior, and the model year following, e.g., the value for MY 2012 represents the average of MY 2011-2013) which "smooth out" the year-to-year volatility. The two curves are essentially inversely proportional to each other, i.e., vehicle tailpipe CO_2 emissions (grams per mile) are proportional to fuel consumption (gallons per mile), which is the reciprocal of fuel economy (miles per gallon).

Figure 2.1

Adjusted CO_2 Emissions by Model Year



Green House Gas Trends

Green house gas emissions from 1990 to 2010 are presented in the Oregon Global Warming Commission 2013 report to the legislature. Some of the trends are shown in the Figures below. The report has much more useful information and is located at: http://www.keeporegoncool.org/

Oregon in boundary greenhouse gas emissions by sector

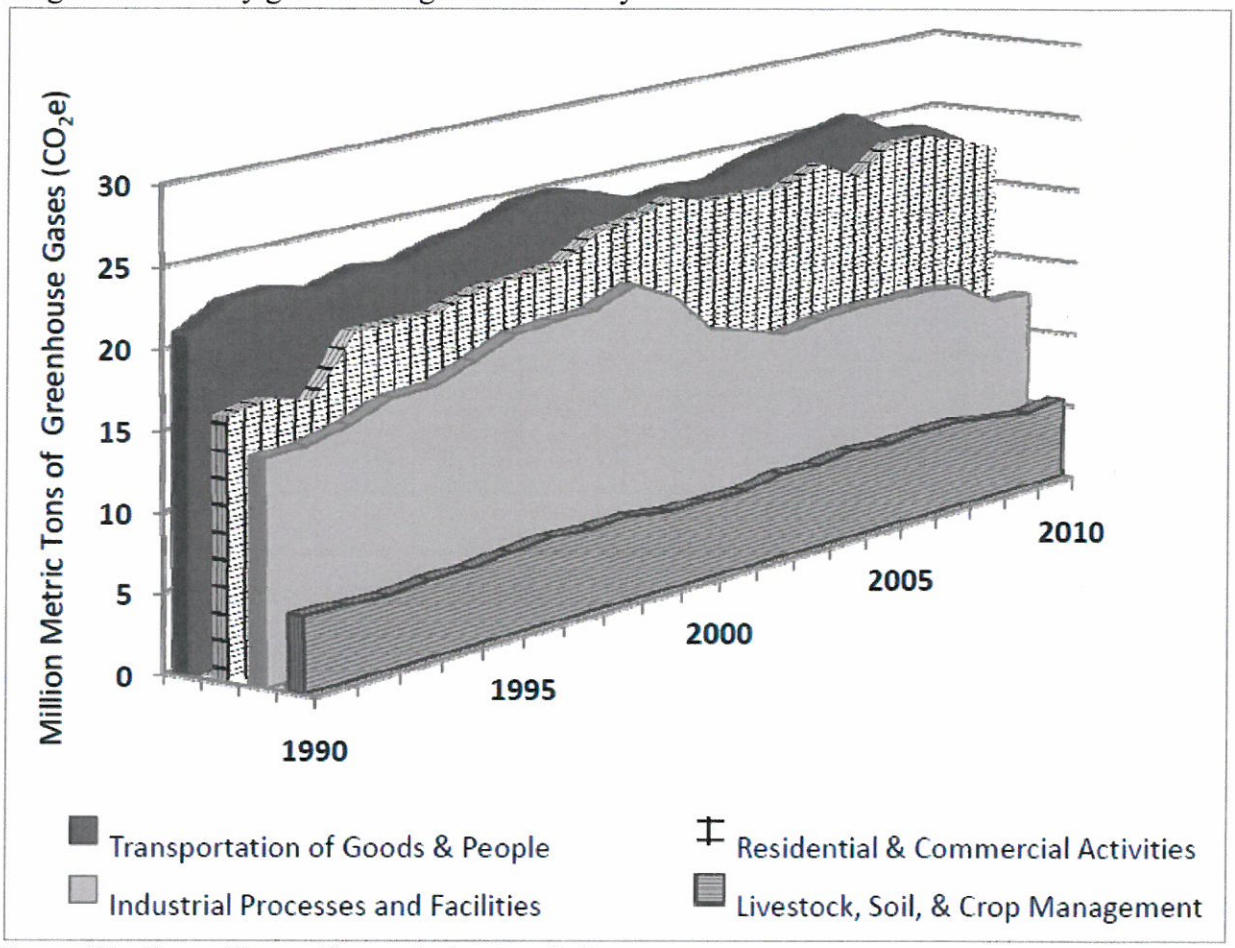
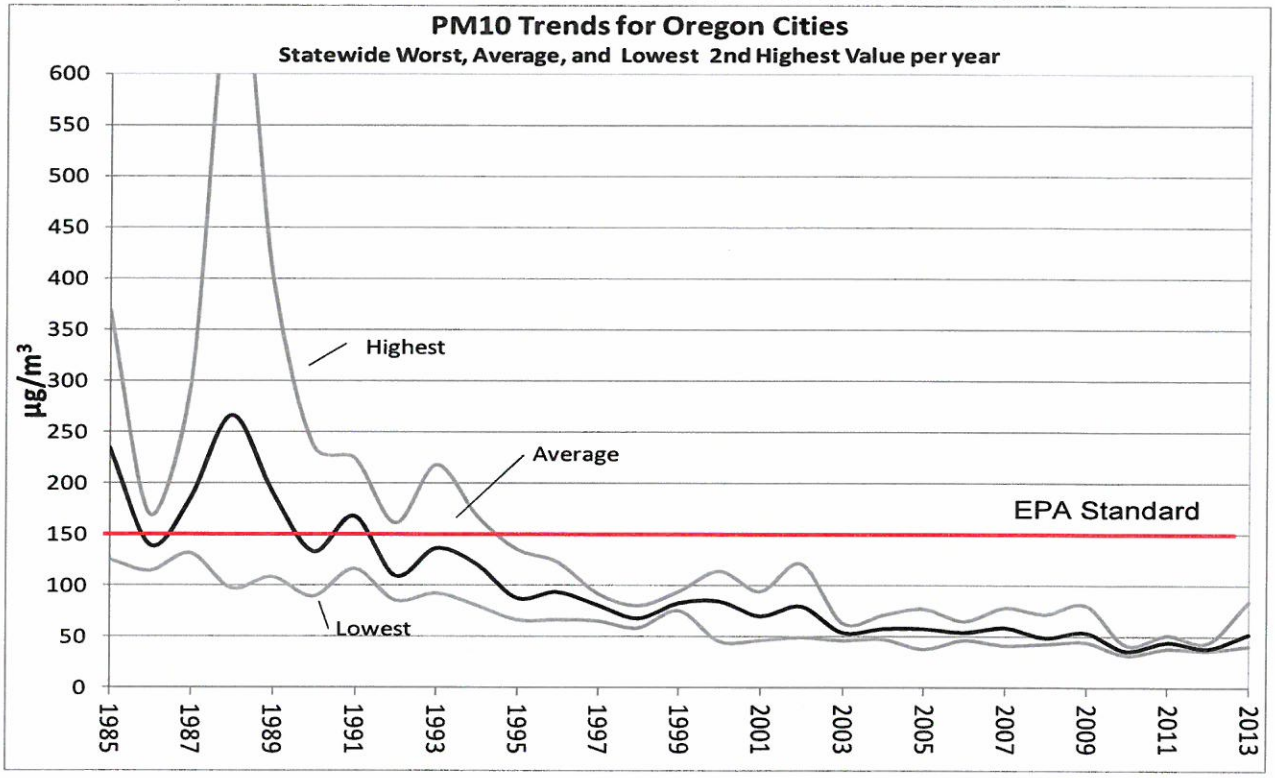


Figure 73. Green House Gas emission trends by sector.

PM_{10} Trends

The PM_{10} trend chart shows the values in the city with the highest concentration, the average, concentration, and the lowest concentration. All cities are well below the standard.



Carbon Monoxide Trends

Carbon monoxide is well below the federal standard.

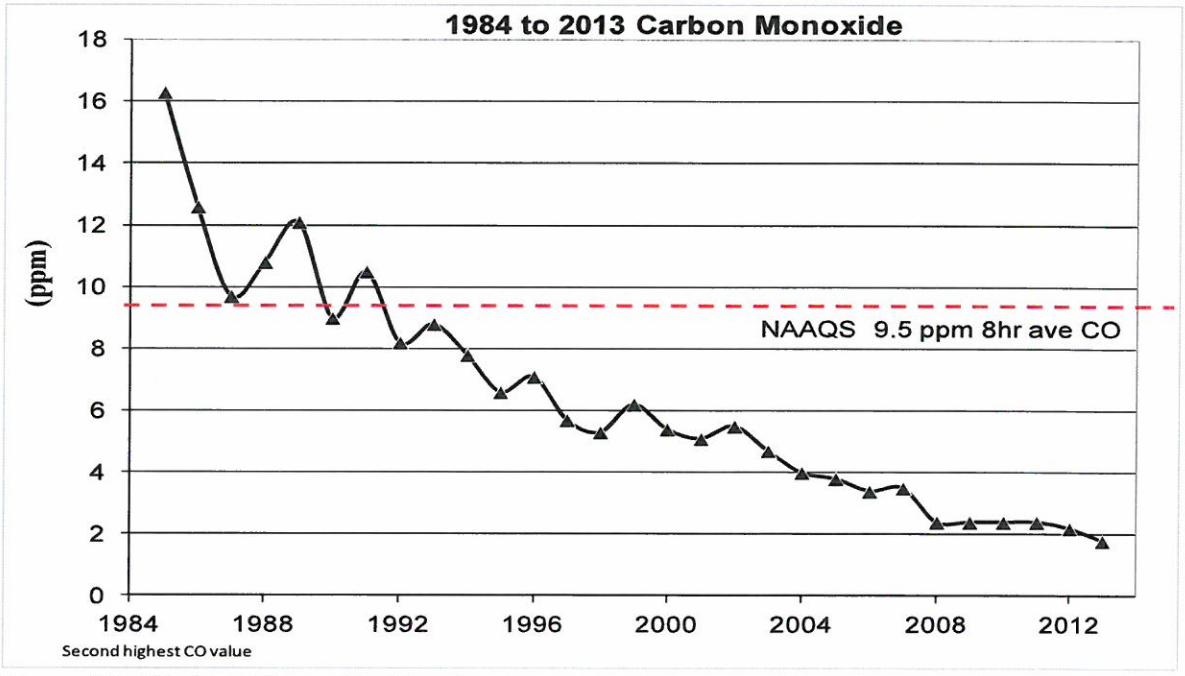


Figure 64. Carbon Monoxide Trend.

Trend chart uses the second highest annual, eight hour average. ppm = parts per million.

Technical Services

LRAPA's air quality monitoring network consists of 7 monitoring sites that measure a total of 46 parameters. The agency collected about 300,000 hours of pollutant-related data in 2013. At an estimated operational cost of $281,272 per year, LRAPA's network provides Lane County with comprehensive data on local air quality. Without the local program, the Lane County network could have as few as four sites, with a total of four to six sets of equipment, and a collection basis of fewer than 40,000 hours of pollutant-related data annually.

LRAPA's network includes three locations in Eugene, and one each in Springfield, Oakridge, Cottage Grove, and Saginaw.

2013 Monitoring Sites:

Amazon Park
(South Eugene)

Cottage Grove
(City Shops)

Four Corners
(Highway 99/Roosevelt),

Oakridge Community Center (Oakridge)

Saginaw
(Delight Valley Elementary School)

Santa Clara (meteorology only)
(North Eugene)

Springfield City Hall
(Springfield)

Long-term trends tell the story of improvement in air quality. Locally, particulate matter has been the pollutant of concern. Over the last twenty five years, levels of inhalable and respirable particulate matter have been dramatically reduced. Cleaner burning wood stoves and smoke curtailment programs have been the major drivers of this reduction.

Long Term Trends