

DRAFT

DO NOT CITE OR QUOTE

Table S-1
Emissions Data for Diesel Buses Not Equipped with Diesel Particulate Filters

Citation	Number of Vehicles	Engine Make	Engine Model	Model Year	Type of Diesel Fuel	2-Stroke or 4-Stroke	Ox. Catalyst?	Emissions (g/mile)			Included in Analysis?
								PM	NOx	SO ₂	
Ahlvik and Brandberg (2)	1	Scania	Euro II	?	< 10 ppm S	?	None	0.34	17.9		
	1	Scania	Euro II	?	< 10 ppm S	?	Yes	0.28	17.7		
McCormick <i>et al.</i> (3)	2	DDC	50	1993	No 2	4	None	0.77	45		
Motta <i>et al.</i> (68)	6	Cummins	L10	1990	No 2	4	None	1.99	22		
	5	Cummins	L10	1991	No 2	4	None	1.74	24.6		
	3	DDC	6V-92TA	1992	No. 1	2	None	0.72	25		
	5	DDC	6V-92TA	1992	No. 1	2	None	1.05	25.3		
	5	DDC	6V-92TA	1992	No. 1	2	None	0.81	25.8		
	4	DDC	6V-92TA	1990	No. 1 or 2	2	None	2.53	26.7		
Lanni <i>et al.</i> (1)	2	DDC	50	1999	350 ppm S	4	Yes	0.21	24.5	0.29	Yes
	2	DDC	50	1999	30 ppm S	4	Yes	0.17	25.4	0.026	
Northeast Advanced Vehicle Consortium (72)	1	DDC	50	1998	300 ppm S	4	Yes	0.24	30.1		Yes
	1	DDC	50	2000	No 1	4	Yes	0.51	23		Yes
West Virginia University (16)	1	DDC	50	1998	No 1	4	Yes	0.17	28.7		Yes
	2	DDC	50	1995	No 1	4	Yes	0.49	37.3		Yes

DRAFT

DO NOT CITE OR QUOTE

Table S-2
Emissions Data for Diesel Buses Equipped with Diesel Particulate Filters

Citation	Number of Vehicles	Engine Make	Engine Model	Model Year	Type of Diesel Fuel	2-Stroke or 4-Stroke	Ox. Catalyst?	Emissions (g/mile)			Included in Analysis?
								PM	NOx	SO ₂	
Ahvik and Brandberg (2)	1	Scania	Euro II		< 10 ppm S	?	Yes	0.03	17.2		
Motta <i>et al.</i> (68)	3	DDC	6V-92TA	1992	No. 1	2	None	0.44	25.6		
	5	DDC	6V-92TA	1992	No. 1	2	None	0.34	27		
Lanni <i>et al.</i> (1)	2	DDC	50	1999	30 ppm S	4	Yes	0.03	25.1	0.0072	Yes

DRAFT

DO NOT CITE OR QUOTE

Table S-3
Emissions Data for CNG Buses

Citation	Number of Vehicles	Engine Make	Engine Model	Model Year	Open Loop?	Ox. Catalyst?	Emissions (g/mile)			Included in Analysis?
							PM	NOx	SO ₂	
McCormick <i>et al.</i> (3)	1	Cummins	L10G	1995			0.09	16.5		Yes
	1	John Deere	8.1L	1996			0.09	14.8		Yes
	2	DDC	50G	1994	Yes		0.19	44.7		
Motta <i>et al.</i> (68)	5	Cummins	240G	1991	Yes		0.01	29		
	5	Cummins	240G	1992	Yes		0.01	30.4		
	5	Cummins	240G	1993	Yes		0.03	12		
	5	Cummins	240G	1994	Yes		0.02	11.2		
Northeast Advanced Vehicle Consortium (72)	1	Cummins	280G	1998		Yes	0.02	25		Yes
	1	DDC	50G	1999		No ^a	0.02	14.9		Yes
	1	DDC	50G	1998		No ^a	0.02	9.7		Yes
West Virginia University (16)	2	DDC	50G	1999		No ^a	0.05	16.5		Yes

Notes

a. Although these studies reported that the Detroit Diesel Corporation Vehicles tested were configured with a catalytic converter, the buses tested were not so equipped (73).

**Table S-4
 Greenhouse Gas Emissions for Diesel and CNG Vehicles**

Citation	Propulsion	Number of Vehicles	Engine Make	Engine Model	Model Year	CO ₂ Equivalent Emissions (g/mile) ^a	
						CO ₂	CH ₄
Lanni <i>et al.</i> (1)	CD	2	DDC	50	1999	2,920	
	ECD	2	DDC	50	1999	2,958	
Northeast Advanced Vehicle Consortium (72)	CD	1	DDC	50	1998	2,779	
	CNG	1	Cummins	280G	1998	2,392	307
	CNG	1	DDC	50G	1999	2,343	365
	CNG	1	DDC	50G	1998	2,785	498
West Virginia University (16)	CD	1	DDC	50	2000	2,533	
	CD	1	DDC	50	1998	2,366	
	CD	2	DDC	50	1995	2,213	
	CNG	2	DDC	50G	1999	2,382	
McCormick <i>et al.</i> (3)	CNG	1	Cummins	L10G	1995	2,749	
	CNG	1	John Deere	8.1L	1996	2,093	

Notes:

- a. CO₂ equivalent emissions for CH₄ reflect multiplication of CH₄ emissions by the CH₄ 100 year time horizon GWP value of 21 (p. 9 in (5)).

Table S-5
Optimal Tax on CO₂ and Methane Emissions^a

Study	Tax per Ton of CO₂
Nordhaus (1991) ^{b,f}	\$2.5 (\$0.1-\$22.4) ^d
Ayers and Walter (74) ^f	\$10.2-\$11.9
Nordhaus (75)	\$2.3 (best guess) and \$6.1 (expected value)
Cline (76); Cline (77)	\$2.6-\$52.4
Peck and Teisberg (78)	\$4.1-\$4.8
Fankhauser (79)	\$7.8 (\$2.5-\$18.0) ^d
Maddison (80)	\$2.8-\$2.9 ^e
Tol (64) ^c	\$4.4

Notes:

- a. *Calculated based on Table 4 in (64).*
- b. *Full reference not available in Tol (64).*
- c. *Costs in Tol (64) were expressed in 1990 dollars and have been converted to 1998 dollars here.*
- d. *Values in parentheses represent 90% confidence intervals.*
- e. *The lower value reported by Maddison (80) is the result of a cost benefit calculation, whereas the upper value is the result of a marginal cost calculation.*
- f. *The model did not explicitly consider the time when the emission occurs.*

**Table S-6
 CNG Infrastructure Capital Cost Estimates**

Source and Location	Conversion or New	Facility Type	Reported Capital Cost	Per-Vehicle-Year Capital Cost Amortized over 50 Years: Discount Rate of 3% (2000 dollars) ^{a,b}
p. 26 in (66) (LA County MTA)	New	Fuel	200 buses – \$6,858,000 divided into 10 equal payments made over 10 years ^c	\$823
p. 23 in (6) (LA County, MTA)	Conversion	Fuel	200-buses, outdoor facility – \$1,700,000	\$326
Table 5 in (68) (Location not specified)	Conversion	Fuel	For conversion of a diesel facility to CNG for 160 buses – \$1,500,000 (1994 dollars)	\$417
Table 5 in (68) (Location not specified)	Conversion	Maintenance	For conversion of a diesel facility to CNG for 160 buses – \$1,080,000 (1994 dollars)	\$300
Table 5 in (68) (Location not specified)	Conversion	Storage	For conversion of a diesel facility to CNG for 160 buses – \$1,170,000 (1994 dollars)	\$325
Dana Lowell, NYCT, Personnel Communication NY City	Conversion	Fuel	Bid of \$5 million for a 200 bus facility in the Bronx and \$7 million for a 200 bus facility in Brooklyn	\$957
Dana Lowell, NYCT, Personnel Communication NY City	New	Maintenance and Storage	Capital Planning Department estimated \$5 million cost for a new 200 bus 1-floor CNG facility	\$957
Dana Lowell, NYCT, Personnel Communication NY City	Conversion	Maintenance and Storage	Bid of \$15 million to convert a 200 bus facility with all indoor parking in Brooklyn	\$2,872
Dana Lowell, NYCT, Personnel Communication NY City	Conversion	Maintenance and Storage	Estimated \$50 million cost of converting a 3-level 200 bus facility when little extra outdoor space is available.	\$9,575
Brown (81) (Toronto, Canada)	Conversion	Fuel, Maintenance, and Storage	\$8.2 million Canadian for a 125 Bus facility	\$1,621 (U.S.)

Notes:

- a. *The computations have been based on the assumption that payments are made mid-year.*
- b. *Adjustments for inflation were made using the consumer price index (at <http://minneapolisfed.org/economy/calc/hist1913.html>)*

- c. *This analysis assumed that payments of \$685,800 were made annually for each of 10 years. This expenditure amounts to \$3,429 per bus. However, because the buses have a useful life of 12 years, and the facility has been assumed to have a useful life of 25 years, the analysis assigned (12/50) of this annual cost to the buses considered here.*

References

1. Lanni, T.; Chatterjee, S.; Conway, R.; Windawi, H.; Rosenblatt, D.; Bush, C.; Lowell, D.; Evans, J.; McLean, R. *Performance and Durability Evaluation of Continuously Regenerating Particulate Filters on Diesel Powered Urban Buses at NY City Transit*; SAE International, Warrendale, PA. 2001; 2001-01-0511.
2. Ahlvik, P.J.E.; Brandberg, A.R.L. *Relative Impact on Environment and Health from the Introduction of Low Emission City Buses in Sweden*; SAE International, Warrendale, PA. 2000; 2000-01-1882.
3. McCormick, R.L.; Graboski, M.S.; Alleman, T.; Herring, A.M.; Nelson, P. *In-Use Emissions from Natural Gas Fueled Heavy-Duty Vehicles*; SAE International, Warrendale, PA. 1999; 1999-01-1507.
4. Wang, M.Q. *GREET 1.5 -- Transportation Fuel-Cycle Model. Volume 1: Methodology, Development, Use, and Results*; Argonne National Laboratories, Argonne, IL. 1999; ANL/ESD-39, Vol 1.
5. Wang, M.Q.; Huang, H.-S. *A Full Fuel-Cycle Analysis of Energy and Emissions Impacts of Transportation Fuels Produced From Natural Gas*; Center for Transportation Research, Energy Systems Division, Argonne National Laboratory, Argonne, IL. 1999; ANL/ESD-40.
6. *Guidebook for Evaluating, Selecting, and Implementing Fuel Choices for Transit Bus Operations*; National Research Council, Transportation Research Board, Washington, DC. 1998; Report no. 38.
7. Beer, T.; Grant, T.; Brown, R.; Edwards, J.; Nelson, P.; Watson, H.; Williams, D. *Life-cycle Emissions Analysis of Alternative Fuels for Heavy Vehicles*; CSIRO

- Atmospheric Research - Prepared for the Australian Greenhouse Office 2000;
C/0411/1.1/F2.
8. *Annual Energy Outlook 2001: With Projections to 2020*; U.S. Department of Energy, Energy Information Administration, Office of Integrated Analysis and Forecasting, Washington, DC. 2000; DOE/EIA-0383(2001).
 9. *The Cleaner Choice: Natural Gas as a Substitute for Diesel*; Engine, Fuel, and Emissions Engineering, Inc., Sacramento, CA. 1999; GRI-99/0261.
 10. Lowell, D., New York City Transit, personal communication, December 14, 2000.
 11. Allansson, R.; Cooper, B.J.; Thoss, J.E.; Uusimaki, A.; Walker, A.P.; Warren, J.P. *European Experience of High Mileage Durability of Continuously Regenerating Diesel Particulate Filter Technology*; SAE International, Warrendale, PA. 2000; 2000-01-0480.
 12. Warren, J.; Allansson, R.; Hawer, P.N.; Wilkins, A.J.J. Presented at the Diesel Engines - Particulate Control, London, November 23, 1998.
 13. Schwartz, J.; Dockery, D.W.; Neas, L.M. *J. Air Waste Manag. Assoc.* 1996, 46, 927.
 14. Krewski, D.; Burnett, R.T.; Goldberg, M.S.; Hoover, K.; Siemiatycki, J.; Abrahamowicz, M.; White, W.H. *Particle Epidemiology Reanalysis Project*; Health Effects Institute, Cambridge, MA. 2000.
 15. *Air Quality Criteria for Particulate Matter*; U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC. 1996; EPA/600/P-95/001.

16. *Emissions Performance Testing of Eight Transit Buses with Different Fuels and Technologies*; West Virginia University, Transportable Heavy-Duty Vehicle Emissions Testing Laboratory, Department of Mechanical & Aerospace Engineering. Prepared for the Massachusetts Bay Transportation Authority, Morgantown, WV. 2000.
17. Hawker, P.; Huthwohl, G.; Henn, J.; Koch, W.; Luders, H.; Luers, B.; Stommel, P. *Effect of a Continuously Regenerating Diesel Particulate Filter on Non-Regulated Emissions and Particle Size Distribution*; SAE International, Warrendale, PA. 1998; 980189.
18. Gibbs, R. Presented at the 6th Engine Emissions Reduction Workshop, San Diego, CA, August 20-24, 2000.
19. Wichmann, H.-E.; Spix, C.; Tuch, T.; Wolke, G.; Peters, A.; Heinrich, J.; Kreyling, W.G.; Heyder, J. *Daily Mortality and Fine and Ultrafine Particles in Erfurt, Germany. Part I: Role of Particle Number and Particle Mass*; Health Effects Institute, Cambridge, MA. 2000; Report no. 98.
20. Bennett, D.H.; McKone, T.E.; Evans, J.S.; Nazaroff, W.W.; Margni, M.D.; Jolliet, O.; Smith, K.R. *Environ. Sci. Technol.* 2002, 36, 207A.
21. Wolff, S. Sc.D. Dissertation, Department of Environmental Health, Harvard School of Public Health, 2000.
22. Scire, J.S.; Strimaitis, D.G.; Yamartino, R.J. *A User's Guide for the CALPUFF Dispersion Model (Version 5)*; Earth Tech, Concord, MA. 2000.

23. Krupnick, A.; McConnell, V.; Austin, D.; Cannon, M.; Stoessell, T.; Morton, B. *The Chesapeake Bay and the Control of NOx Emissions: A Policy Analysis*; Resources for the Future, Washington, DC. 1998; Discussion Paper 98-46.
24. Ryerson, T.B.; Trainer, M.; Holloway, J.S.; Parrish, D.D.; Huey, L.G.; Sueper, D.T.; Frost, G.J.; Donnelly, S.G.; Schauffler, S.; Atlas, E.L.; Kuster, W.C.; Goldan, P.D.; Hubler, G.; Meagher, J.F.; Fehsenfeld, F.C. *Science* 2001, 292 (5517), 719.
25. Abt Associates; ICF Consulting; E.H. Pechan Associates *The Particulate-Related Health Benefits of Reducing Power Plant Emissions*, Bethesda, MD. 2000.
26. Nishioka, Y.; Levy, J.I.; Norris, G.A.; Wilson, A.; Hofstetter, P.; Spengler, J.D. *Risk Anal.* 2002, 22, 1003.
27. *User's Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*; U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC. 1995; EPA-454/R-92-006.
28. Eckhoff, P.A.; Braverman, T.N. *Addendum to the User's Guide to CAL3QHC version 2.0 (CAL3QHCR User's Guide)*. U.S. Environmental Protection Agency, Research Triangle Park, NC. 1995.
29. Nguyen, K.; Dabdub, D. *Aerosol Sci. Tech.* 2002, 36, 560.
30. Carrothers, T.J.; Wolff, S.K.; Tuomisto, J.; Wilson, A.; Levy, J.I.; Graham, J.D.; Evans, J.S. *Assessing the Economic Value of Further Research About Fine Particle Air Pollution*; Harvard School of Public Health, Boston, MA. 2002.
31. Toy, E. Ph.D. Dissertation, Health Policy, Harvard University, 2002.

32. *The Benefits and Costs of the Clean Air Act: 1990 to 2010*; U.S. Environmental Protection Agency, Office of Air and Radiation, Washington, DC. 1999; EPA-410-R99-001.
33. Pope, C.A.; Burnett, R.T.; Thun, M.J.; Calle, E.E.; Krewski, D.; Ito, K.; Thurston, G.D. *J. Am. Med. Assoc.* 2002, 287 (9), 1132.
34. Pope, C.A.; Thun, M.J.; Namboodiri, M.M.; Dockery, D.W.; Evans, J.S.; Speizer, F.E.; Heath, C.W. *Am. J. Respir. Crit. Care Med.* 1995, 151, 669.
35. Dockery, D.W.; Pope, C.A.; Xu, X.; Spengler, J.D.; Ware, J.H.; Fay, M.E.; Ferris, B.G.; Speizer, F.E. *N. Engl. J. Med.* 1993, 329 (24), 1753.
36. Abbey, D.E.; Nishino, N.; McDonnell, W.F.; Burchette, R.J.; Knutsen, S.F.; Beeson, W.L.; Yang, J.X. *Am. J. Respir. Crit. Care Med.* 1999, 159, 373.
37. Leksell, I.; Rabl, A. *Risk Anal.* 2001, 21, 843.
38. Samet, J.M.; Zeger, S.L.; Dominici, F.; Curriero, F.; Coursac, I.; Dockery, D.W.; Schwartz, J.; Zanobetti, A. *The National Morbidity, Mortality, and Air Pollution Study Part II: Morbidity, Mortality, and Air Pollution in the United States*; Health Effects Institute, Cambridge, MA. 2000.
39. *Johns Hopkins University Investigators of the National Morbidity, Mortality, and Air Pollution Study. Frequently-Asked Questions*; Johns Hopkins NMMAPS Project Team, Accessed on: July 24, 2002, http://www.biostat.jhsph.edu/biostat/research/nmmaps_faq.htm.
40. Hoyert, D.L.; Kochanek, K.D.; Murphy, S.L. *Deaths: Final data for 1997*; National Center for Health Statistics: Hyattsville, MD, 1999; Vol. 47.
41. Zeger, S.L.; Dominici, F.; Samet, J. *Epidemiology* 1999, 10, 171.

42. Schwartz, J. *Am. J. Epidemiol.* 2000, *151*, 440.
43. Carrothers, T.J. Sc.D. Dissertation, Health Policy and Management and Environmental Health, Harvard School of Public Health, 2000.
44. Rabl, A. *Interpretation of Air Pollution Mortality: Number of Deaths or Years of Life Lost?*; École des Mines de Paris, France. 2002.
45. Stinnett, A.A.; Mittleman, M.A.; Weinstein, M.C.; Kuntz, K.M.; Cohen, D.J.; Williams, L.W.; Goldman, P.A.; Staiger, D.O.; Hunink, M.G.M.; Tsevat, J.; Tosteson, A.N.A.; Goldman, L. In *Cost-Effectiveness in Health and Medicine*; Gold, M.R., Siegel, J.E., Russell, L.B., Weinstein, M.C., Eds.; Oxford University Press: New York, NY, 1996; p 349.
46. Levy, J.I.; Carrothers, T.J.; Tuomisto, J.; Hammitt, J.K.; Evans, J.S. *Environ. Health Perspect.* 2001, *109*, 1215.
47. Thurston, G.D.; Ito, K. *J. Expo. Anal. Environ. Epidemiol.* 2001, *11*, 286.
48. Peters, J.M.; Avol, E.; Navidi, W.; London, S.J.; Gauderman, W.J.; Kurmann, F.; Linn, W.S.; Margolis, H.; Rappaport, E.; Gong, H.J.; Thomas, D.C. *Am. J. Respir. Crit. Care Med.* 1999, *159*, 760.
49. Zemp, E.; Elsasser, S.; Schindler, C.; Kunzli, N.; Perruchoud, A.P.; Domenighetti, G.; Medici, T.; Ackermann-Liebrich, U.; Leuenberger, P.; Monn, C.; Bolognini, G.; Bongard, J.P.; Brandli, O.; Karrer, W.; Keller, R.; Schoni, M.H.; Tschopp, J.M.; Villiger, B.; Zellweger, J.P.; Team, S. *Am. J. Respir. Crit. Care Med.* 1999, *159*, 1257.
50. McDonnell, W.F.; Abbey, D.E.; Nishino, N.; Lebowitz, M.D. *Environ. Res.* 1999, *80*, 110.

51. Hammitt, J.K.; Belsky, E.S.; Levy, J.I.; Graham, J.D. *Risk Anal.* 1999, *19*, 1037.
52. *Health Assessment Document for Diesel Exhaust (SAB Review Draft)*; U.S. Environmental Protection Agency, National Center for Environmental Assessment, Office of Research and Development, Washington, DC. 2000; EPA/500/8-90/057E.
53. Bhatia, R.; Lopipero, P.; Smith, A. *Epidemiology* 1998, *9* (1), 84.
54. Dawson, S.V.; Alexeeff, G.V. *Risk Anal.* 2001, *21* (1), 1.
55. Garshick, E.; Schenker, M.B.; Munoz, A.; Segal, M.; Smith, T.J.; Woskie, S.R.; Hammond, S.K.; Speizer, F.E. *Am. Rev. Resp. Disease* 1988, *137* (4), 820.
56. *Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant*; California Air Resources Board, Office of Environmental Health Hazard Assessment 1998.
57. *Diesel Emissions and Lung Cancer: Epidemiology and Quantitative Risk Assessment. A Special Report of the Institute's Diesel Epidemiology Expert Panel*; Health Effects Institute, Cambridge, MA. 1999.
58. Crump, K. *Risk Anal.* 2001, *21* (1), 19.
59. Dawson, S.V.; Alexeeff, G.V. *Risk Anal.* 2001, *21* (2), 213.
60. Cohen, J.T.; Beck, B.D.; Rudel, R. *Risk Anal.* 1997, *17* (4), 419.
61. Ries, L.A.G.; Eisner, M.P.; Kosary, C.L.; Hankey, B.F.; Miller, B.A.; Clegg, L.; Edwards, B.K. *SEER Cancer Statistics Review, 1973-1998*; National Cancer Institute, Bethesda, MD. 2001.
62. Gambino, M.; Cericola, R.; Corbo, P.; Iannaccone, S. *J. Engin. Gas Turbines Power* 1993, *115*, 747.

63. Ayala, A.; Kado, N.; Okamoto, R.; Rieger, P.; Holmen, B.; Stiglitz, K. Presented at the 12th CRC On-Road Vehicle Emissions Workshop, San Diego, April 15-17, 2002.
64. Tol, R.S.J. *Energy J.* 1999, 20 (1), 61.
65. Manne, A.; Richels, R. In *The Costs of the Kyoto Protocol: A Multi-Model Evaluation. A Special Issue of The Energy Journal*; Weyant, J.P., Jacoby, H., Edmonds, J., Richels, R., Eds.; Energy Economics Education Foundation: Cleveland, OH, 1999; p 1.
66. *Fuel Strategies for Future Bus Procurements: Final Report*; Los Angeles County Metropolitan Transportation Authority, Transit Operations Department, Los Angeles, CA. 1999.
67. Lassen, M., Johnson Matthey, personal communication, May 1, 2001.
68. Motta, R.; Norton, P.; Kelly, K.; Chandler, K.; Schumacher, L.; Clark, N. *Alternative Fuel Transit Buses*; National Renewable Energy Laboratory Vehicle Evaluation Program 1996.
69. *Mass Transit: Use of Alternative Fuels in Transit Buses*; US General Accounting Office, Washington, DC. 1999; GAO/RCED-00-18.
70. Lassen, M., Johnson Matthey, personal communication, January 9, 2001.
71. Arcadis Geraghty & Miller *Review of the Los Angeles County Metropolitan Transportation Authority's "Fuel Strategies for Future Bus Procurements"*, Los Angeles, CA. 1999; FR-99-104.
72. Northeast Advanced Vehicle Consortium; M.J. Bradley & Associates Inc.; West Virginia University *Hybrid-Electric Drive Heavy-Duty Vehicle Testing Project*.

- Final Emissions Report*; Defense Advanced Research Projects Agency,
Manchester, NH. 2000; Agreement No. NAVC1098-PG009837.
73. Schaeffer, A., Detroit Diesel Corporation, May 3, 2001.
74. Ayers, R.U.; Walter, J. *Environ. Res. Econ.* 1991, 1, 237.
75. Nordhaus, W.D. *Managing the Global Commons: The Economics of Climate Change*; MIT Press: Cambridge, MA, 1994.
76. Cline, W.R. *Optimal Carbon Emissions over Time: Experiments with the Nordhaus DICE Model (draft)*; 1992.
77. Cline, W.R. *Modeling Economically Efficient Abatement of Greenhouse Gases (draft)*; 1993.
78. Peck, S.C.; Teisberg, T.J. *Climate Change* 1994, 28, 289.
79. Fankhauser, S. *Valuing Climate Change - The Economics of the Greenhouse*; EarthScan: London, 1995.
80. Maddison, D.J. *Energy Pol.* 1995, 23 (4/5), 337.
81. Brown, W.D. Presented at the Washington Metropolitan Area Transit Authority Board of Directors Alternative Fuel Workshop, Washington, D.C., July 6, 2000.