

**GENERAL ASSEMBLY OF NORTH CAROLINA**  
**SESSION 2007**

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**HOUSE BILL 1912**  
**Committee Substitute Favorable 7/11/07**

Short Title: School Bus Retrofits in Nonattainment Areas.

(Public)

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Sponsors:

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Referred to:

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May 2, 2007

A BILL TO BE ENTITLED

1 AN ACT TO ESTABLISH A PILOT PROGRAM TO PROVIDE FUNDS FOR  
2 LOCAL SCHOOL ADMINISTRATIVE UNITS TO RETROFIT SCHOOL BUSES  
3 IN ORDER TO REDUCE DIESEL EMISSIONS FROM CERTAIN DIESEL  
4 SCHOOL BUSES REGISTERED IN COUNTIES LOCATED IN AREAS  
5 DESIGNATED AS NONATTAINMENT OR MAINTENANCE FOR OZONE OR  
6 PARTICULATE MATTER.  
7

8 The General Assembly of North Carolina enacts:

9 **SECTION 1.** Legislative Findings. – The General Assembly makes the  
10 following findings:

- 11 (1) Diesel emissions, due in large part to their high concentrations of  
12 particulate matter, are associated with severe and multiple health risks  
13 to the citizens of North Carolina, including increased risk of cancer,  
14 decreased lung function, aggravated asthma, heart attacks, and  
15 premature death.
- 16 (2) The United States Environmental Protection Agency, recognizing the  
17 harmful effects of diesel emissions, issued new fuel and engine  
18 emission standards that will reduce particulate matter emissions from  
19 new engines ninety percent (90%) below previous levels, beginning  
20 with vehicle model year 2007.
- 21 (3) The same technology that makes ninety percent (90%) reductions in  
22 diesel emissions possible for new engines can be retrofitted onto  
23 existing engines.
- 24 (4) The Safe Accountable, Flexible, Efficient Transportation Equity Act –  
25 A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, 119 Stat.  
26 1144, 23 U.S.C. § 149, clarified eligibility for diesel matter retrofit  
27 projects from federal congestion mitigation and air quality  
28 improvement program funds apportioned to the State by the United  
29 States pursuant to 23 U.S.C. § 104(b)(2) and establishes those projects

1 as a priority for funding. North Carolina should act now to position  
2 itself to maximize eighty percent (80%) federal matching dollars  
3 available through this program as provided in 23 U.S.C. § 120.

4 **SECTION 2.(a)** Pilot Program to Retrofit Certain School Buses. – The  
5 Department of Environment and Natural Resources, in consultation with the  
6 Department of Public Instruction, the Department of Transportation, and stakeholders,  
7 shall develop a pilot program, to be administered by the Department of Environment  
8 and Natural Resources, to award grants to retrofit school buses in order to reduce diesel  
9 emissions from school buses in any county that is located in an area that is designated  
10 by the United States Environmental Protection Agency as nonattainment or maintenance  
11 for ozone or particulate matter. A local school administrative unit may submit an  
12 application to the Department of Environment and Natural Resources for a grant to have  
13 any eligible school bus retrofitted in order to utilize an appropriate verified diesel  
14 emission control device as determined by the Department of Environment and Natural  
15 Resources. A school bus is eligible to have a diesel retrofit using grant funds if the  
16 school bus: (i) has a model year 1994 through model year 2006 engine; (ii) is registered  
17 in a county that is located in an area that is designated by the United States  
18 Environmental Protection Agency as nonattainment or maintenance for ozone or  
19 particulate matter; (iii) is capable of operating on diesel fuel and; (iv) is used for the  
20 transportation of public school students. The Department of Environment and Natural  
21 Resources may adopt guidelines and engineering standards as needed to implement this  
22 act. The Department of Environment and Natural Resources shall develop grant  
23 application procedures, the criteria and priorities for selecting grant recipients and  
24 further selection of which school buses of these grant recipients may use grant funds for  
25 diesel retrofits under this pilot program, and procedures for distribution of grant funds  
26 and federal-aid funds reimbursed under Section 7 of this act to a local school  
27 administrative unit selected as a grant recipient. The criteria that may be considered in  
28 grant recipient selection includes the remaining useful life of a school bus and the  
29 accumulated mileage and years of service of a school bus. Priority designation for  
30 selection of school buses for retrofits using grant funds may be given for a diesel retrofit  
31 that results in the greatest particulate matter reduction, considering the costs of  
32 operating, maintaining, and repairing the verified diesel emission control device, for the  
33 longest remaining useful life of the school bus.

34 **SECTION 2.(b)** Definitions. – As used in this act, the following definitions  
35 apply:

- 36 (1) Diesel retrofit. – Defined in Chapter 149 of Title 23 of the United  
37 States Code.
- 38 (2) Level 1 Control. – A verified diesel emission control device that  
39 achieves a particulate matter emission reduction of twenty-five percent  
40 (25%) or more but less than fifty percent (50%) from uncontrolled  
41 engine emissions levels.
- 42 (3) Level 2 Control. – A verified diesel emission control device that  
43 achieves a particulate matter emission reduction of fifty percent (50%)

1 or more but less than eighty-five percent (85%) from uncontrolled  
2 engine emissions levels.

3 (4) Level 3 Control. – A verified diesel emission control device that  
4 achieves a particulate matter emission reduction of eighty-five percent  
5 (85%) or more from uncontrolled engine emission levels, or that  
6 reduces emissions to less than or equal to 0.01 grams of particulate  
7 matter per brake horsepower-hour. Level 3 Control includes  
8 repowering or replacing the existing diesel engine with an engine that  
9 meets the United States Environmental Protection Agency 2007 Heavy  
10 Duty Highway Diesel Standards set out in the Final Rule published on  
11 18 January 2001 in the Federal Register, Volume 66, Number 12,  
12 Pages 5002 through 5193. Level 3 Control also includes new diesel  
13 engines for the 2007 model year or later that meet the emissions  
14 standards that achieve particulate matter emissions reductions that are  
15 ninety percent (90%) less than particulate matter emissions standards  
16 for diesel engines in the 2006 model year.

17 (5) Verified diesel emission control device. – An emission control device  
18 or strategy that has been verified by the United States Environmental  
19 Protection Agency or the California Air Resources Board; the  
20 replacement or repowering of the vehicle with an engine that is  
21 certified to specific particulate matter emissions performance by the  
22 United States Environmental Protection Agency or the California Air  
23 Resources Board; or a device that reduces crankcase emissions by  
24 ninety percent (90%) or more from uncontrolled crankcase emissions  
25 levels, whether or not the device is verified by United States  
26 Environmental Protection Agency or the California Air Resources  
27 Board as an emission control device or strategy.

28 **SECTION 2.(c)** Appropriate Retrofit Technology. – Within one year of the  
29 effective date of this section, the Secretary of Environment and Natural Resources, in  
30 consultation with the Department of Public Instruction, may make a written finding that  
31 a model, model year, or any other category concerning the type or use of a school bus  
32 that is eligible for a grant under subsection (a) of this section cannot be retrofitted with  
33 Level 3 Control, and that the category may use grant funds to be retrofitted with Level 2  
34 Control, if it is available and appropriate for the category, installed, and operational.  
35 Within one year of the effective date of this section, the Secretary of Environment and  
36 Natural Resources, in consultation with the Department of Public Instruction, may make  
37 a written finding that a model, model year, or any other category concerning the type or  
38 use of a school bus that is eligible for a grant under subsection (a) of this section cannot  
39 be retrofitted with Level 2 Control, and that the category may use grant funds to be  
40 retrofitted with Level 1 Control, if it is available and appropriate for the category,  
41 installed, and operational. The Secretary of Environment and Natural Resources may  
42 require additional emissions control to be used for those school buses retrofitted with  
43 Level 1 Control using grant funds. Within one year of the effective date of this section,  
44 the Secretary of Environment and Natural Resources, in consultation with the

1 Department of Public Instruction, may make a written finding regarding: the  
2 comparative economic impact, health benefits, and technological feasibility of using  
3 Level 1 Control, Level 2 Control, Level 3 Control, or other verified diesel emission  
4 control device under this pilot program; which device results in the greatest emissions  
5 reductions, considering the cost of operating, maintaining, and repairing the devices  
6 over their anticipated useful life; recommendations regarding the appropriate verified  
7 diesel emission control device to be used for retrofits under this pilot program consistent  
8 with these findings. In addition to any other issues of retrofit technology considered  
9 when making any finding under this subsection, the Secretary of Environment and  
10 Natural Resources and the Department of Public Instruction may consider the remaining  
11 useful life of a school bus and the accumulated mileage and years of service of a school  
12 bus.

13           **SECTION 2.(d)** Coordination Among Departments. – The Department of  
14 Environment and Natural Resources shall coordinate with the Department of Public  
15 Instruction, the Department of Transportation, and the Department of Administration to  
16 determine if the effective and efficient implementation of this pilot program requires  
17 any of these departments to have a role beyond any role specified in this act, and if so,  
18 the Department of Public Instruction, the Department of Transportation, and the  
19 Department of Administration, as applicable, may adopt guidelines and engineering  
20 standards as needed to implement this section. The Department of Transportation may  
21 amend its Transportation Improvement Program and otherwise satisfy any other  
22 requirement under federal law so that school bus retrofits under this pilot program  
23 qualify for reimbursement of federal-aid funds as provided under Section 7 of this act.

24           **SECTION 3.(a)** School Bus Diesel Emissions Reduction Account  
25 Established. – The School Bus Diesel Emissions Reduction Account is established as a  
26 nonreverting account within the Department of Environment and Natural Resources.  
27 The Account shall consist of funds appropriated to it by the General Assembly and any  
28 contributions or grants from public or private sources.

29           **SECTION 3.(b)** Permissible Uses of the School Bus Diesel Emissions  
30 Reduction Account. – The Department of Environment and Natural Resources shall  
31 distribute funds in the School Bus Diesel Emissions Reduction Account as grants to  
32 local school administrative units for retrofitting school buses under this pilot program.  
33 The distributed funds shall be in an amount that is equal to twenty percent (20%) of the  
34 costs of purchasing a diesel retrofit for each school bus selected for retrofitting, based  
35 upon the costs of purchasing a diesel retrofit for a school bus as determined by the  
36 Department of Environment and Natural Resources. The funds shall be used by the  
37 local school unit to match the federal-aid funds that are to be reimbursed under Section  
38 7 of this act, provided the Metropolitan Planning Organization for the area in which that  
39 local school administrative unit seeking grant funds under this pilot program has  
40 amended its Transportation Improvement Program and has otherwise satisfied any  
41 requirement under federal law so that the diesel retrofit as it applies to this local school  
42 administrative unit qualifies for reimbursement of federal-aid funds as provided under  
43 Section 7 of this act. Funds in the School Bus Diesel Emissions Reduction Account  
44 shall not be used for any costs associated with any school bus retrofit in excess of the

1 sum of the twenty-percent (20%) share the local school administrative unit received in  
2 grant funds under this section for each diesel retrofit and the eighty-percent (80%) share  
3 in federal-aid funds for each diesel retrofit. Costs associated with any school bus retrofit  
4 in excess of this sum, if any, shall be borne by the local school administrative unit that  
5 operates the school bus. Any funds in the School Bus Diesel Emissions Reduction  
6 Account that have not been used or obligated as of 1 July 2009 in accordance with this  
7 section may be used to make grants to local school administrative units for one hundred  
8 percent (100%) of the costs for purchasing a diesel retrofit for a school bus as  
9 determined by the Department of Environment and Natural Resources. Funds in the  
10 School Bus Diesel Emissions Reduction Account shall not be used for any costs  
11 associated with any school bus retrofit in excess of one hundred percent (100%) of the  
12 costs for purchasing a diesel retrofit for a school bus as determined by the Department  
13 of Environment and Natural Resources, and excess costs associated with any school bus  
14 retrofit, if any, shall be borne by the local school administrative unit that operates the  
15 school bus.

16 **SECTION 3.(c)** Prohibited Uses of the School Bus Diesel Emissions  
17 Reduction Account. – Funds in the School Bus Diesel Emissions Reduction Account  
18 shall not be used for any school bus with tampered, nonconforming, or defective  
19 emission control components.

20 **SECTION 4.(a)** Transfer of Information. – On or before 1 August 2008, the  
21 Department of Public Instruction shall submit to the Department of Environment and  
22 Natural Resources the following information:

- 23 (1) The total number of school buses that are eligible for grants under  
24 subsection (a) of Section 2 of this act.
- 25 (2) The number of school buses that are equipped with an engine certified  
26 to the applicable United States Environmental Protection Agency  
27 standard for particulate matter as set out in 40 Code of Federal  
28 Regulations §§ 86.007-11 (1 July 2006 Edition).

29 **SECTION 4.(b)** Annual Report Required. – On or before 1 September 2008,  
30 and again on or before 1 September 2009, the Department of Environment and Natural  
31 Resources shall submit a report to the Department of Public Instruction, the Department  
32 of Transportation, and the Environmental Review Commission on the pilot program  
33 under this act. This report shall include the information submitted under subsection (a)  
34 of this section and shall also include:

- 35 (1) The total number of school buses that have the retrofit technology  
36 installed and operational under this pilot program, including a  
37 breakdown by location, vehicle model year, engine year, and the type  
38 of verified diesel emission control device used for each school bus.
- 39 (2) The anticipated emissions reductions based on the emissions  
40 certification of the verified diesel emission control devices used and  
41 the annual miles the school buses are expected to drive.
- 42 (3) Any recommendations to further reduce diesel emissions from school  
43 buses and whether the program to retrofit certain school buses  
44 registered in a county that is located in an area that is designated by the

1 United States Environmental Protection Agency as nonattainment or  
2 maintenance for ozone or particulate matter is accomplishing its  
3 purpose to reduce diesel emissions, improve air quality, and protect  
4 students' health.

5 (4) The feasibility and the cost of expanding the funding for this pilot  
6 program for all eligible school buses for local school administrative  
7 units in counties that are located in an area that is designated by the  
8 United States Environmental Protection Agency as nonattainment or  
9 maintenance for ozone or particulate matter.

10 (5) The feasibility and the cost of expanding this pilot program statewide.

11 **SECTION 5.** Credit for Emissions Reductions. – The Department of  
12 Environment and Natural Resources shall work together with federal, State, and local  
13 air quality and transportation agencies to determine how emissions reductions achieved  
14 through implementation of this act may be quantified and credited by the United States  
15 Environmental Protection Agency to the appropriate emissions reduction objectives in  
16 the State Implementation Plan or Transportation Conformity determinations.

17 **SECTION 6.** Appropriation. – There is appropriated from the General Fund  
18 to the School Bus Diesel Emissions Reduction Account, established in Section 3 of this  
19 act, the sum of five hundred thousand dollars (\$500,000) for the 2007-2008 fiscal year  
20 and the sum of five hundred thousand dollars (\$500,000) for the 2008-2009 fiscal year  
21 to be used for grants to local school administrative units for the purchase of diesel  
22 retrofits for school buses consistent with subsection (b) of Section 3 of this act.

23 **SECTION 7.** Reimbursement of Federal-Aid Funds. – The Department of  
24 Transportation may reimburse up to two million dollars (\$2,000,000) for the 2007-2008  
25 fiscal year and up to two million dollars (\$2,000,000) for the 2008-2009 fiscal year from  
26 the federal congestion mitigation and air quality improvement program funds  
27 apportioned to the State of North Carolina by the United States pursuant to 23 U.S.C. §  
28 104(b)(2), to the Department of Environment and Natural Resources for the costs of  
29 purchasing diesel retrofits for school buses under the pilot program under this act. This  
30 reimbursement may provide the eighty percent (80%) in federal-aid funds, as provided  
31 in 23 U.S.C. § 120, for the costs of purchasing diesel retrofits for school buses to  
32 supplement the funds awarded as grants under subsection (b) of Section 3 of this act.  
33 The Department of Transportation and the Department of Environment and Natural  
34 Resources may enter into a contract that provides for the terms and method by which  
35 the Department of Environment and Natural Resources bills the Department of  
36 Transportation for reimbursement of eligible costs of purchasing diesel retrofits for  
37 school buses and submits itemized invoices with proper supporting documentation. This  
38 contract may provide a reimbursement schedule.

39 **SECTION 8.** Effective Dates. – Section 6 and Section 7 of this act become  
40 effective 1 July 2007. The remainder of this act is effective when this act becomes law.