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SENATE BILL NO. 272

Offered January 12, 2022

Prefiled January 11, 2022

A BILL to amend and reenact § 10.1-1186 of the Code of Virginia and to amend the Code of Virginia by adding sections numbered 2.2-1135.1 and 33.2-276.1 and by adding in Article 13 of Chapter 3 of Title 58.1 a section numbered 58.1-439.12:13, relating to lower carbon concrete; report.

Patron—Hashmi

Referred to Committee on Agriculture, Conservation and Natural Resources

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1186 of the Code of Virginia is amended and reenacted and that the Code of Virginia is amended by adding sections numbered 2.2-1135.1 and 33.2-276.1 and by adding in Article 13 of Chapter 3 of Title 58.1 a section numbered 58.1-439.12:13 as follows:

§ 2.2-1135.1. Use of lower carbon concrete.

A. As used in this section:

"Concrete" means structural and nonstructural masonry, precast, and ready-mix concrete building products.

"Concrete global warming potential baseline" or "baseline" means the average global warming potential values for concrete specifications approved for use by the Department and the Department of Transportation in buildings, infrastructure, and roadways owned by the Commonwealth. The baseline shall be determined by the Department of Environmental Quality, in consultation with the Department and the Department of Transportation, pursuant to § 10.1-1186.

"Environmental product declaration" means product specific Type III environmental product declarations that conform to ISO Standard 14025 and enable the numeric GWP and environmental impact comparisons between concrete mixes fulfilling the same functions.

"Global warming potential" or "GWP" means a numeric value included in an environmental product declaration that measures the total contribution to global warming from the emission of greenhouse gases, or the elimination of greenhouse gas sinks, that results from the production or utilization of a specific product or service.

"Lower carbon concrete" means concrete mixes and products that have been verified to result in a global warming potential value that is at least 20 percent lower than the concrete global warming potential baseline.

B. By January 1, 2023, the Department, the Department of Transportation, and the Department of Environmental Quality shall develop and implement performance-based specifications for concrete use in buildings, infrastructure, and roadways owned by the Commonwealth.

C. 1. For any building project initiated by the Department after January 1, 2023, that involves the placement of 50 cubic yards or more of concrete, a concrete material provider shall be eligible for a performance bonus if such provider utilizes a lower carbon concrete.

2. The provisions of this subsection shall not apply to a project if the Director, in his sole discretion, determines that (i) it would not be in the public interest, (ii) it would result in unreasonable costs, (iii) such lower carbon concrete cannot be produced or made in sufficient and reasonably available quantities of satisfactory quality, or (iv) it would conflict with compliance with state or federal law. Such determination shall be included in the request for proposal, invitation to bid, or other solicitation for any project for which such determination is made.

D. The Department shall report annually to the Governor and the General Assembly, beginning December 1, 2023, of the lower carbon concrete performance bonus, including a cost-benefit analysis of the use of lower carbon concrete.

§ 10.1-1186. General powers of the Department.

The Department shall have the following general powers, any of which the Director may delegate as appropriate:

1. Employ such personnel as may be required to carry out the duties of the Department;

2. Make and enter into all contracts and agreements necessary or incidental to the performance of its duties and the execution of its powers under this chapter, including, but not limited to, contracts with the United States, other states, other state agencies and governmental subdivisions of the Commonwealth;

3. Accept grants from the United States government and agencies and instrumentalities thereof and any other source. To these ends, the Department shall have the power to comply with such conditions

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59 and execute such agreements as may be necessary, convenient, or desirable;

60 4. Accept and administer services, property, gifts and other funds donated to the Department;

61 5. Implement all regulations as may be adopted by the State Air Pollution Control Board, the State
62 Water Control Board, and the Virginia Waste Management Board;

63 6. Administer, under the direction of the Boards, funds appropriated to it for environmental programs
64 and make contracts related thereto;

65 7. Advise and coordinate the responses of state agencies to notices of proceedings by the State Water
66 Control Board to consider certifications of hydropower projects under 33 U.S.C. § 1341;

67 8. Advise interested agencies of the Commonwealth of pending proceedings when the Department of
68 Environmental Quality intervenes directly on behalf of the Commonwealth in a Federal Energy
69 Regulatory Commission proceeding or when the Department of Wildlife Resources intervenes in a
70 Federal Energy Regulatory Commission proceeding to coordinate the provision of information and
71 testimony for use in the proceedings;

72 9. *Establish, in cooperation with the Department of General Services and the Department of*
73 *Transportation, the concrete global warming potential baseline, as that term is defined in § 33.2-276.1.*
74 *Such baseline shall be established by January 1, 2023, and reestablished every five years thereafter.*

75 10. Notwithstanding any other provision of law and to the extent consistent with federal
76 requirements, following a proceeding as provided in § 2.2-4019, issue special orders to any person to
77 comply with: (i) the provisions of any law administered by the Boards, the Director or the Department,
78 (ii) any condition of a permit or a certification, (iii) any regulations of the Boards, or (iv) any case
79 decision, as defined in § 2.2-4001, of the Boards or Director. The issuance of a special order shall be
80 considered a case decision as defined in § 2.2-4001. The Director shall not delegate his authority to
81 impose civil penalties in conjunction with issuance of special orders. For purposes of this subdivision,
82 "Boards" means the State Air Pollution Control Board, the State Water Control Board, and the Virginia
83 Waste Management Board; and

84 ~~10.~~ 11. Perform all acts necessary or convenient to carry out the purposes of this chapter.

85 **§ 33.2-276.1. Use of lower carbon concrete.**

86 A. As used in this section:

87 "Concrete" means structural and nonstructural masonry, precast, and ready-mix concrete building
88 products.

89 "Concrete global warming potential baseline" or "baseline" means the average global warming
90 potential values for concrete specifications approved for use by the Department of General Services and
91 the Department in buildings, infrastructure, and roadways owned by the Commonwealth. The baseline
92 shall be determined by the Department of Environmental Quality, in consultation with the Department
93 and the Department of General Services, pursuant to § 10.1-1186.

94 "Environmental product declaration" means product specific Type III environmental product
95 declarations that conform to ISO Standard 14025 and enable the numeric GWP and environmental
96 impact comparisons between concrete mixes fulfilling the same functions.

97 "Global warming potential" or "GWP" means a numeric value included in an environmental product
98 declaration that measures the total contribution to global warming from the emission of greenhouse
99 gases, or the elimination of greenhouse gas sinks, that results from the production or utilization of a
100 specific product or service.

101 "Lower carbon concrete" means concrete mixes and products that have been verified to result in a
102 global warming potential value that is at least 20 percent lower than the concrete global warming
103 potential baseline.

104 B. By January 1, 2023, the Department, the Department of General Services, and the Department of
105 Environmental Quality shall develop and implement performance-based specifications for concrete use in
106 buildings, infrastructure, and roadways owned by the Commonwealth.

107 C. 1. For any highway, bridge, or infrastructure project initiated by the Department after January 1,
108 2023, that involves the placement of 50 cubic yards or more of concrete, a concrete material provider
109 shall be eligible for a performance bonus if such provider utilizes a lower carbon concrete that is
110 included on the Department's approved materials list.

111 2. The provisions of this subsection shall not apply to a project if the Commissioner, in his sole
112 discretion, determines that (i) it would not be in the public interest, (ii) it would result in unreasonable
113 costs, (iii) such lower carbon concrete cannot be produced or made in sufficient and reasonably
114 available quantities of satisfactory quality, (iv) it would result in the loss or reduction of federal
115 funding, (v) it would limit or jeopardize the ability to obtain federal funding, or (vi) it would conflict
116 with compliance with state or federal law. Such determination shall be included in the request for
117 proposal, invitation to bid, or other solicitation for any project for which such determination is made.

118 D. The Department shall implement an expedited evaluation process for lower carbon concrete,
119 materials, and methods submitted by application from a private entity for inclusion on the Department's
120 approved materials list. Applicants shall be notified of evaluation results no later than six months after

the submission of an application, unless technical constraints make completing of the evaluation in such time frame impractical.

E. The Department shall report annually to the Governor and the General Assembly, beginning December 1, 2023, of the lower carbon concrete performance bonus, including a cost-benefit analysis of the use of lower carbon concrete.

§ 58.1-439.12:13. Environmental product declaration tax credit.

A. For purposes of this section, "environmental product declaration (EPD) technology implementation cost" means the total initial cost incurred by concrete and concrete component producers to analyze, adopt, and implement technologies that enable the subsequent completion of Type III EPDs that conform to ISO Standard 14025 at concrete production facilities and enable the numeric global warming potential and environmental impact comparisons between concrete mixes fulfilling the same functions.

B. 1. For taxable years beginning on or after January 1, 2022, but before January 1, 2025, a taxpayer that is a producer of concrete, including producers of major concrete components, cement, and aggregate, shall be allowed a nonrefundable credit against the tax imposed pursuant to § 58.1-320 or 58.1-400 for amounts paid in the taxable year for EPD technology implementation costs incurred for an EPD analysis at up to eight concrete, cement, supplementary cementitious materials, or aggregate production facilities owned and operated by the taxpayer in Virginia.

2. For taxable years beginning on or after January 1, 2025, but before January 1, 2026, a taxpayer that is a producer of concrete, including producers of major concrete components, cement, and aggregate, shall be allowed a nonrefundable credit against the tax imposed pursuant to § 58.1-320 or 58.1-400 for amounts paid in the taxable year for EPD technology implementation costs incurred for an EPD analysis at a single concrete, cement, supplementary cementitious materials, or aggregate production facility owned and operated by the taxpayer in Virginia.

C. The credit shall equal the lesser of the amount actually paid in the taxable year for such EPD technology implementation costs or \$5,000.

D. The amount of the credit that may be claimed in any single taxable year shall not exceed the total amount of tax imposed by this chapter for that taxable year. If the amount of the credit allowed under this section exceeds the taxpayer's tax liability for the taxable year during which the EPD technology implementation costs were incurred, the amount that exceeds the tax liability may be carried over for credit against the income taxes of the taxpayer in the next five taxable years or until the total amount of the tax credit has been taken, whichever is sooner.

E. The Tax Commissioner shall develop guidelines implementing the provisions of this section. Such guidelines shall be exempt from the provisions of the Administrative Process Act (§ 2.2-4000 et seq.).

2. That the Materials Division of the Department of Transportation shall, by January 1, 2023, complete an evaluation of the durability, strength, and structural performance of portland limestone cement, and such cement shall be included on the list of approved materials if the evaluation finds that inclusion is consistent with the goals of public safety and cost efficiency. For purposes of this enactment, "portland limestone cement" means Type II or Type IT blended hydraulic cement (ASTM C595) that includes up to 15 percent pulverized limestone as a substitute for clinkers.