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Introduced by M. of A. CARROLL, DICKENS, RODRIGUEZ, GOTTFRIED, ABINANTI, GLICK, STIRPE, FAHY, BARRON, DAVILA, NIOU, L. ROSENTHAL, EPSTEIN -- Multi-Sponsored by -- M. of A. COOK, SIMON -- read once and referred to the Committee on Governmental Operations

AN ACT to amend the state finance law and the tax law, in relation to implementing "The New York State Low Embodied Carbon Concrete Leadership Act"

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. This act shall be known and may be cited as "The New York State Low Embodied Carbon Concrete Leadership Act".

§ 2. Section 165 of the state finance law is amended by adding a new subdivision 9 to read as follows:

9. Special provisions for purchase of concrete.

a. For the purposes of this section, the following terms shall have the following meanings:

(i) "Concrete" shall mean structural and non-structural masonry, pre-cast and ready-mix concrete building products.

(ii) "Concrete mix" shall mean a specific combination of components, including water, cement, aggregate and other materials which are used to produce concrete products. The structural properties of concrete mixes vary by strength, durability, curing time and other performance characteristics as a result of the defined proportions of their components and the methods used in their production.

(iii) "Portland cement" shall mean hydraulic cement produced by pulverizing clinkers in combination with one or more of the forms of calcium sulfate.

(iv) "Embodied carbon emissions" shall mean carbon emissions generated as a result of a material's production, including mining, refining, and shipping.

EXPLANATION--Matter in italics (underscored) is new; matter in brackets [-] is old law to be omitted.

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1 (v) "Global warming potential" (GWP) shall mean a numeric value that
2 measures the total contribution to global warming from the emission of
3 greenhouse gases, or the elimination of greenhouse gas sinks, that
4 results from the production and/or utilization of a specific product or
5 service.

6 (vi) "Carbon dioxide equivalent" (CO2e) shall mean a measure used to
7 compare the emissions from various greenhouse gases based upon their
8 global warming potential.

9 (vii) "Low embodied carbon concrete" shall mean concrete that has been
10 verified to embody lower carbon emissions, as measured by a GWP metric,
11 compared to the baseline embodied carbon emissions of conventional
12 concrete made with portland cement. Low embodied carbon emissions can be
13 achieved through diverse methods and processes including, but not limit-
14 ed to: (A) higher energy efficiency at the level of the concrete and/or
15 cement plant; (B) low carbon fuel substitution at the level of the
16 concrete and/or cement plant; (C) local production resulting in reduced
17 emissions from transportation; (D) the reduction of clinker content in
18 the cement component of concrete, or the substitution of clinker content
19 with lower carbon-intensive alternative materials like supplementary
20 cementitious materials (SCMs) such as ground granulated blast furnace
21 slag, fly ash, and recycled ground-glass pozzolan; (E) the capture and
22 storage of point source CO2 emissions during the cement and concrete
23 production process; or (F) the utilization and mineralization of carbon
24 in concrete materials.

25 (viii) "Environmental product declaration" (EPD) shall mean product
26 specific Type III EPDs that conform to ISO Standard 14025 and enable the
27 numeric GWP and environmental impact comparisons between concrete mixes
28 fulfilling the same functions.

29 (ix) "Carbon capture, utilization and/or storage" (CCUS) shall mean
30 methods and technologies to remove CO2 from the flue gas and from the
31 atmosphere, followed by recycling the CO2 for utilization and/or deter-
32 mining safe and permanent storage options for captured CO2.

33 (x) "Concrete delivery miles" (CDM) shall mean the distance in miles
34 concrete mixer trucks travel from the production facility to the job
35 site plus return travel.

36 (xi) "Low embodied carbon discount rate" shall mean a rate, set by the
37 commissioner, applied to one or more of the bids for supply of concrete
38 and based on the GWP derived from certified EPD analysis of each bid
39 relative to all competitive bids. Estimated CO2e resulting from project
40 CDM shall be assessed in addition to GWP derived from EPD analysis and
41 factored into the discount rate.

42 (xii) "Low embodied carbon concrete breakthrough" shall mean any tech-
43 nology, method, or product, including but not limited to one that incor-
44 porates qualified carbon capture utilization and storage, that once
45 fully commercialized and implemented has the potential to significantly
46 reduce the GWP of concrete.

47 (xiii) "Low embodied carbon concrete breakthrough discount rate" shall
48 mean a discount, set by the commissioner, applied to one or more of the
49 bids for supply of concrete and based on the incorporation of qualified
50 low embodied carbon concrete breakthroughs.

51 (xiv) "Net zero CO2 emissions" shall mean a state whereby the total
52 amount of CO2 utilized and/or captured during the concrete production
53 process and/or mineralized in concrete materials are equal to the amount
54 of CO2 emissions released during the production and utilization of that
55 concrete.

1 (xv) "Net negative CO2 emissions" shall mean a state whereby the
2 amount of CO2 utilized and/or captured during the concrete production
3 process and/or mineralized in concrete materials are greater than the
4 amount of CO2 emissions released during the production and utilization
5 of that concrete.

6 b. When letting contracts for the purchase of fifty cubic yards or
7 more of concrete on behalf of facilities, transportation authorities and
8 institutions of the state, solicitation specifications of the office of
9 general services and any other agency, department, office, board or
10 commission shall apply a low embodied carbon concrete price discount
11 rate to offerer bids for the purposes of bid assessment and selection.
12 Discount rates will be applied to offerer bid prices on the basis of the
13 GWP values for concrete products specified in offerer bids. GWP values
14 shall be submitted by offerers in the form of certified EPDs. In addi-
15 tion to GWP values quantified in EPD submissions, the effect of CDM and
16 the fuel usage/emissions factor thereof shall be considered. The CO2e
17 emissions quantified for CDM shall be incorporated into the GWP values
18 quantified in EPD. A price discount not exceeding five percent shall be
19 applied to top performing bids that certify the lowest GWP values via
20 EPD submission. The commissioner shall establish rules and guidelines
21 whereby specific price discount rates shall be determined and applied to
22 bids based on GWP performance.

23 c. For bids that have been certified by the commissioner to incorpo-
24 rate low embodied carbon concrete breakthrough products and technolo-
25 gies, the commissioner shall establish a supplemental price discount
26 rate to be applied in addition to the low embodied carbon concrete
27 discount rate defined in paragraph b of this subdivision. Bids that
28 receive price discounts based on GWP performance and which incorporate
29 qualified low embodied carbon concrete breakthrough products and tech-
30 nologies will be granted a supplemental price discount for bid assess-
31 ment and selection purposes that shall not exceed three percent. The
32 low embodied carbon concrete breakthrough discount rate shall be added
33 to the low embodied carbon discount rate and applied to the base bid
34 price.

35 d. The New York state energy research and development authority is
36 directed to establish criteria for qualifying a technology, method, or
37 product as a low embodied carbon concrete breakthrough, including: (i)
38 the minimum threshold for what constitutes a significant concrete GWP
39 reduction, relative to net emissions reduction targets established in
40 chapter one hundred six of the laws of two thousand nineteen; and (ii)
41 appropriate stage of market adoption and penetration. The commissioner
42 shall evaluate potential new low carbon concrete breakthrough technolo-
43 gies, methods, and products and maintain an annually updated directory
44 of qualified low embodied carbon concrete breakthrough technologies,
45 methods, and products.

46 e. For bid opportunities that include multiple concrete mixes the GWP
47 of all mixes will be proportionally weighted into a single GWP score
48 that will serve as the basis for assessment and selection.

49 f. For state-funded construction projects that will be completed by
50 private contracting firms that have been contracted by the state, and
51 for which concrete will be procured for the project, such contractors
52 shall comply with the selection standards and rules stipulated in this
53 paragraph when subcontracting services from concrete providers. Such
54 contractors shall report EPD documentation included in subcontract bids
55 that demonstrate compliance with the standards and rules. The commis-

1 sioner shall institute and issue guidelines pertaining to penalties for
2 non-compliance by such contractors.

3 g. The commissioner shall issue regulations for the implementation of
4 this subdivision, including but not limited to: (i) establishing guide-
5 lines that will assist agencies in determining which contracts meet the
6 requirements in paragraph b of this subdivision; (ii) publishing such
7 purchasing guidelines on the office of general services' website,
8 disseminating such guidelines to agencies and training contracting
9 personnel on implementing such guidelines; and (iii) providing for moni-
10 toring of implementation.

11 h. The commissioner shall complete and submit to the legislature an
12 annual cost-benefit analysis of the low embodied carbon concrete
13 procurement standard, in order to quantify the budgetary impact of the
14 program relative to the latter's carbon reduction impact and recommend
15 any additional incentives or requirements that may be necessary to help
16 the state meet its clean energy goals established in chapter one hundred
17 six of the laws of two thousand nineteen.

18 § 3. Section 606 of the tax law is amended by adding a new subsection
19 (kkk) to read as follows:

20 (kkk) The environmental product declaration tax credit. (a) Defi-
21 nitions. For the purposes of this section:

22 (i) "low embodied carbon concrete" shall mean concrete that has been
23 verified by environmental product declaration to embody lower carbon
24 emissions, as measured by a Global Warming Potential (GWP) metric,
25 compared to the baseline embodied carbon emissions of conventional
26 concrete.

27 (ii) "environmental product declaration (EPD) analysis" shall mean
28 product specific Type III EPDs that conform to ISO Standard 14025 and
29 enable global warming potential (GWP) and environmental impact compar-
30 isons between products fulfilling the same functions.

31 (b) Allowance of credit. Producers of concrete, as well as the produc-
32 ers of the major concrete components, cement and aggregate, that are
33 taxpayers shall be allowed a credit, to be computed as provided in this
34 subsection, against the tax imposed by this article, to compensate for
35 financial burdens incurred as a result of EPD analyses undertaken to
36 determine the product-based embodied carbon emissions of one or multiple
37 concrete products produced at one or multiple plants that such taxpayer
38 owns and operates.

39 (c) Amount of credit. The credit authorized by this subsection shall
40 not exceed the lesser of: (i) the full costs incurred for an EPD analy-
41 sis of a single concrete, cement, supplementary cementitious materials,
42 and/or aggregate production facility; or (ii) three thousand dollars,
43 and may be claimed for the costs of completing EPD analyses at up to
44 eight facilities owned by the same producer in a single tax year by a
45 single taxpaying entity in tax years two thousand twenty-two and two
46 thousand twenty-three. Tax credit eligibility will expire at the end of
47 two thousand twenty-three.

48 (d) Application of credit. The credit allowed under this subsection
49 for any taxable year shall not reduce the tax due for such year to less
50 than the fixed dollar minimum amount prescribed in paragraph (d) of
51 subdivision one of section two hundred ten of this chapter. However, if
52 the amount of the credit allowed under this subsection for any taxable
53 year reduces the tax to such amount or if the taxpayer otherwise pays
54 tax based on the fixed dollar minimum amount, any amount of credit thus
55 not deductible in such taxable year shall be treated as an overpayment
56 of tax to be credited or refunded in accordance with the provisions of

1 section one thousand eighty-six of this chapter. Provided, however, the
2 provisions of subsection (c) of section one thousand eighty-eight of
3 this chapter notwithstanding, no interest shall be paid thereon.

4 § 4. This act shall take effect on the first of January next succeed-
5 ing the date on which it shall have become a law and shall apply to
6 taxable years commencing on and after such date. Effective immediately,
7 the addition, amendment and/or repeal of any rule or regulation neces-
8 sary for the implementation of this act on its effective date are
9 authorized to be made and completed on or before such effective date.