

# STATE OF NEW YORK

542

2021-2022 Regular Sessions

## IN SENATE

(Prefiled)

January 6, 2021

Introduced by Sen. KAMINSKY -- read twice and ordered printed, and when printed to be committed to the Committee on Finance

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:

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

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

5 9. Special provisions for purchase of concrete.

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

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

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

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

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

22 (v) "Global warming potential" (GWP) shall mean a numeric value that  
23 measures the total contribution to global warming from the emission of

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

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1 greenhouse gases, or the elimination of greenhouse gas sinks, that  
2 results from the production and/or utilization of a specific product or  
3 service.

4 (vi) "Carbon dioxide equivalent" (CO<sub>2</sub>e) shall mean a measure used to  
5 compare the emissions from various greenhouse gases based upon their  
6 global warming potential.

7 (vii) "Low embodied carbon concrete" shall mean concrete that has been  
8 verified to embody lower carbon emissions, as measured by a GWP metric,  
9 compared to the baseline embodied carbon emissions of conventional  
10 concrete made with portland cement. Low embodied carbon emissions can be  
11 achieved through diverse methods and processes including, but not limit-  
12 ed to: (A) higher energy efficiency at the level of the concrete and/or  
13 cement plant; (B) low carbon fuel substitution at the level of the  
14 concrete and/or cement plant; (C) local production resulting in reduced  
15 emissions from transportation; (D) the reduction of clinker content in  
16 the cement component of concrete, or the substitution of clinker content  
17 with lower carbon-intensive alternative materials like supplementary  
18 cementitious materials (SCMs) such as ground granulated blast furnace  
19 slag, fly ash, and recycled ground-glass pozzolan; (E) the capture and  
20 storage of point source CO<sub>2</sub> emissions during the cement and concrete  
21 production process; or (F) the utilization and mineralization of carbon  
22 in concrete materials.

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

27 (ix) "Carbon capture, utilization and/or storage" (CCUS) shall mean  
28 methods and technologies to remove CO<sub>2</sub> from the flue gas and from the  
29 atmosphere, followed by recycling the CO<sub>2</sub> for utilization and/or deter-  
30 mining safe and permanent storage options for captured CO<sub>2</sub>.

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

34 (xi) "Low embodied carbon discount rate" shall mean a rate, set by the  
35 commissioner, applied to one or more of the bids for supply of concrete  
36 and based on the GWP derived from certified EPD analysis of each bid  
37 relative to all competitive bids. Estimated CO<sub>2</sub>e resulting from project  
38 CDM shall be assessed in addition to GWP derived from EPD analysis and  
39 factored into the discount rate.

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

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

49 (xiv) "Net zero CO<sub>2</sub> emissions" shall mean a state whereby the total  
50 amount of CO<sub>2</sub> utilized and/or captured during the concrete production  
51 process and/or mineralized in concrete materials are equal to the amount  
52 of CO<sub>2</sub> emissions released during the production and utilization of that  
53 concrete.

54 (xv) "Net negative CO<sub>2</sub> emissions" shall mean a state whereby the  
55 amount of CO<sub>2</sub> utilized and/or captured during the concrete production  
56 process and/or mineralized in concrete materials are greater than the

1 amount of CO2 emissions released during the production and utilization  
2 of that concrete.

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

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

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

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

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

55 g. The commissioner shall issue regulations for the implementation of  
56 this subdivision, including but not limited to: (i) establishing guide-

1 lines that will assist agencies in determining which contracts meet the  
2 requirements in paragraph b of this subdivision; (ii) publishing such  
3 purchasing guidelines on the office of general services' website,  
4 disseminating such guidelines to agencies and training contracting  
5 personnel on implementing such guidelines; and (iii) providing for moni-  
6 toring of implementation.

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

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

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

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

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

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

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

44 (d) Application of credit. The credit allowed under this subsection  
45 for any taxable year shall not reduce the tax due for such year to less  
46 than the fixed dollar minimum amount prescribed in paragraph (d) of  
47 subdivision one of section two hundred ten of this chapter. However, if  
48 the amount of the credit allowed under this subsection for any taxable  
49 year reduces the tax to such amount or if the taxpayer otherwise pays  
50 tax based on the fixed dollar minimum amount, any amount of credit thus  
51 not deductible in such taxable year shall be treated as an overpayment  
52 of tax to be credited or refunded in accordance with the provisions of  
53 section one thousand eighty-six of this chapter. Provided, however, the  
54 provisions of subsection (c) of section one thousand eighty-eight of  
55 this chapter notwithstanding, no interest shall be paid thereon.

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