STATE OF NEW YORK

8597

IN ASSEMBLY

January 10, 2022

Introduced by M. of A. FAHY -- read once and referred to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law, in relation to enacting the carbon dioxide removal leadership act; and to repeal certain provisions of the tax law relating to taxes on carbon dioxide emissions

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 "Carbon Dioxide Removal Leadership Act". This act directs New York state to procure carbon dioxide removal services in order to achieve statewide net zero greenhouse gas emissions pursuant to legally enforceable limits set forth in paragraph b of subdivision four of section 75-0109 of the environmental conservation law. The use of such mechanism creates a target for carbon dioxide removal by the year two thousand fifty equal to fifteen percent of statewide greenhouse gas emissions estimated as a percentage of emissions in the year nineteen hundred ninety, and shall be implemented in lieu of any alternative compliance mechanism that would permit greenhouse gas emissions offset projects. The procurement of carbon dioxide removal services shall not result in disadvantaged communities having to bear a disproportionate burden of environmental impacts, and shall incorporate preferential consideration for projects that result in quantifiable economic and social benefits for such communities.

§ 2. The environmental conservation law is amended by adding a new article 76 to read as follows:

ARTICLE 76
CARBON DIOXIDE REMOVAL

Section 76-0101. Definitions.
76-0103. New York state carbon dioxide removal reverse auction.
76-0105. Carbon dioxide removal measurement, reporting and verification.

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

LBD14092-01-1

76-0107. Bid preferences.
76-0109. On-going bidder responsibilities.
76-0111. Reverse auction funding.
76-0113. Carbon dioxide removal and equity survey.
76-0115. Authority and compliance.
76-0117. Severability.

§ 76-0101. Definitions.

For the purposes of this article, the following terms shall have the following meanings:

1. "Annual price per ton" means the maximum price per metric ton of CDR which the state will pay per bid in a given year.

2. "Annual removal target" means the minimum total volume of carbon dioxide removal, expressed in metric tons of carbon dioxide equivalent, for which the department will solicit bids in a given year, such amount to be increased by the portion of the annual removal target not met in the prior year.

3. "Bid" means a bid fulfilling the requirements of section 76-0105 of this article.

4. "Bid price" means the total price the bidder is willing to be paid in a given bid for providing carbon dioxide removal.

5. "Bidder" means a person or entities qualified to submit a bid pursuant to the requirements set forth in section 76-0109 of this article.

6. "Carbon dioxide equivalent" or "CO2e" means the amount of carbon dioxide by mass that would produce the same global warming impact as a given mass of another greenhouse gas over an integrated twenty-five-year time frame after emission.

7. "Carbon dioxide removal" or "CDR" means removing carbon dioxide from the atmosphere, on a net basis to CDR process emissions, and durably storing it in geological, terrestrial, or ocean reservoirs, or in long-lived products.

8. "CDR process" means the physical process by which carbon dioxide is removed from the atmosphere and durably sequestered or stored.

9. "CDR project" means the specific project which will be delivering the CDR outlined in a given bid.

10. "Carbon removal fee" means a fee levied by the state against a hard-to-abate emissions source for the purpose of funding this act.

11. "Department" means the department of environmental conservation.

12. "Disadvantaged communities" means communities that bear burdens of negative public health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high concentrations of low- and moderate-income households.

13. "Durability" or "durable" means the secure sequestration of CO2e in the geosphere, in the ocean, in long-lived products, or otherwise, measured as a unit of time.

14. "Greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and any other substance emitted into the air that may be reasonably anticipated to cause or contribute to anthropogenic climate change.

15. "Life-cycle analysis" or "LCA" means a complete, end-to-end analysis of the greenhouse gas emissions resulting from a CDR process, including, but not limited to, manufacturing, transportation, utilization, sequestration and other processes occurring prior to, during, or after, the CDR process which are required to achieve CDR.

16. "Measurement, reporting and verification" or "MRV" means the verified measurement and reporting of CDR using an objective, peer-reviewed

and scientifically supported accounting methodology and taking into account regionally appropriate sampling and data collection methods to quantify emissions and removals associated with the CDR process and durability of removal instead of solely model-based or statistical methods.

17. "Megaton" or "Mt" means one million metric tons.

18. "Minimum bid" means the minimum volume of CDR for which a bidder may submit a bid.

19. "Reverse auction" means a bidding process in which qualified bidders submit bids for CDR to remove and durably store a specified quantity of CO2e in exchange for payment by the state.

20. "Social cost" means a measure, in dollars, of the long-term damage done by a ton of CO2e emissions in a given year.

21. "Ton" means metric ton, or tonne (one thousand kilograms).

22. "Total annual bid" means the total volume of CDR for which bids were submitted in a given year.

§ 76-0103. New York state carbon dioxide removal reverse auction.

1. Pursuant to paragraph a of subdivision four of section 75-0109 of this chapter, beginning in the year two thousand twenty-five, the department shall annually conduct a reverse auction for the purchase of CDR. The department shall initiate the reverse auction on April first and close the reverse auction on June thirtieth of each year the reverse auction is held.

2. All verified CDR purchased by the department through the reverse auction shall be considered a greenhouse gas emission offset as defined in article seventy-five of this chapter.

3. The department shall conduct the reverse auction subject to the following requirements:

a. The department shall accept qualifying bids up to the maximum average price per ton of CDR to meet the annual removal target;

b. The minimum bid for eighty percent of the annual removal target shall be no less than 0.01Mt, or ten thousand tons of CDR;

c. The minimum bid for twenty percent of the annual removal target shall be no less than 0.001Mt, or one thousand tons of CDR;

d. Bids shall include a term for delivery that may not exceed ten years; and

e. The department shall not accept bids causing the total annual bid to exceed the maximum average price per ton pursuant to subdivision three of this section.

4. The maximum average price per ton of CDR shall be three hundred fifty dollars in the year two thousand twenty-five, and shall decrease by five percent each year subsequently as adjusted for inflation.

5. At least sixty days prior to opening each reverse auction, the department shall establish the annual removal target. Such annual removal target shall be set to achieve the greenhouse gas emission offset objectives pursuant to paragraph b of subdivision four of section 75-0109 of this chapter and shall be no less than 0.1Mt in two thousand twenty-five. The department shall increase the annual removal target by at least the following amounts annually:

a. One hundred percent per year from the year two thousand twenty-six through two thousand twenty-nine;

b. Twenty-five percent per year from the year two thousand thirty through two thousand thirty-nine;

c. Twenty percent per year from the year two thousand forty through two thousand forty-four;

d. Ten percent per year from the year two thousand forty-five through two thousand forty-nine; and

e. Three percent in the year two thousand fifty.

6. The department shall accept qualifying bids sufficient to meet the annual removal target, based on the criteria outlined in section 76-0107 of this article. If the total annual bid is less than the annual removal target, the department shall increase the annual removal target in the subsequent year by the difference between the annual removal target and the total annual bid.

7. The department shall publicly announce the winning bids; publicly release the winning bidders' proposals and scorecards and contract with the winning bidders no later than September thirtieth of each year.

8. The department shall recommend any necessary revision to subdivisions three and four of this section based on current and anticipated CDR market conditions in advance of each funding reauthorization stipulated by section 76-0111 of this article.

§ 76-0105. Carbon dioxide removal measurement, reporting and verification.

1. Each bid submitted to the department must contain the following information:

a. Legal name, address, contact information and history of prior participation in the CDR reverse auction, or other public or private-market procurement programs, for each entity or person submitting a bid;

b. The total volume of CDR to be achieved pursuant to the bid;

c. The length of time the bidder will require to deliver the proposed CDR project;

d. A description of the CDR process and the CDR project;

e. LCA of each CDR process required to achieve the proposed CDR project;

f. Land area and water volume employed for CDR project;

g. Description, quantified where possible, of the following externalities and/or co-benefits resulting from the CDR project:

(i) ecosystem and ecological harms and co-benefits, including impacts on the surrounding soil health, biodiversity, and water and air quality;

(ii) job creation and industrial development benefits, particularly in disadvantaged communities; and

(iii) equity and environmental justice impacts;

h. Description of the MRV the bidder will employ for the CDR project, from an independent third-party deemed acceptable by the department that verifies all requirements of this section;

i. Legally binding attestation by each bidder that the information provided is accurate and that all requirements of this section are met; and

j. Any additional information the department reasonably requests to assess the bid.

2. The LCA must demonstrate, and the MRV must verify, that the carbon dioxide will be removed from the atmosphere and securely and durably stored for at least one hundred years from the date of CDR. However, such CDR may not be used in the extraction or recovery of oil or gas.

3. The CDR for which the bid is submitted must commence and be completed as soon as reasonably commercially possible, but completed no later than ten years from the effective date of the contract between the department and bidder. The department may use its discretion to determine payment schedule for the CDR, and how much, if any, payment is to be remitted in advance, and how much on delivery.

4. The CDR project for which the bid is submitted must be unique to this transaction and additional to any prior or otherwise existing or planned CDR, and may not be used as part of any other private or public transaction for carbon removal.

5. Methods of CDR may include, but are not limited to:

a. Terrestrial mineralization or enhanced rock weathering;

b. Terrestrial biomass carbon removal and storage such as biochar, bio-oil or bio-energy with carbon capture and sequestration;

c. Hydrological or marine-based CDR including electro-chemical carbon capture, alkalinity enhancement, marine permaculture, deep-ocean sequestration of biomass, and coastal enhanced weathering;

d. Construction materials and products, the production of which directly contribute to the sequestration of carbon dioxide or other greenhouse gases, including mass timber; or

e. Direct air carbon capture with durable geologic sequestration, or utilization in the built environment including concrete, long-lived plastics, carbon fiber, or other durable goods.

§ 76-0107. Bid preferences.

The department shall create a scorecard to evaluate the bids received based on the following factors:

1. Price per ton;

2. CDR project occurs within state or waters within fifty nautical miles of the state;

3. Scale potential of the CDR process in the state, and generally;

4. Delivery term for the proposed CDR project;

5. CDR project is performed by a bidder that is incorporated, based in, and has state tax liability in the state;

6. Durability of CDR in excess of one hundred years;

7. Conservation efficiency in use of water, land, and energy resources;

8. CDR project offers significant ecological or ecosystem benefits, and does not create significant harms;

9. CDR project benefits one or more disadvantaged communities as defined in section 75-0101 of this chapter;

10. CDR project generates employment within the state; and

11. CDR project is otherwise assessed to promote equity or environmental justice within the state.

§ 76-0109. On-going bidder responsibilities.

1. The department shall require each bidder provide periodic verification from an independent third party deemed satisfactory by the department that:

a. The volume of CDR removed from the atmosphere and stored meets or exceeds the amount provided in the bid; and

b. There has been no leakage of CO2e or material reduction in the number of years of CDR durability.

2. Upon a failure by the bidder to provide the verification required by the department, the department may take action to penalize the bidder, including, but not limited to:

a. Levying fines or penalties against the bidder to recoup funds paid pursuant to the bid; or

b. Rejection of future bids by the bidder.

3. Subject only to the defenses set forth in subdivision four of this section, the bidder, its successors, assigns, and transferees of responsibilities, liabilities, rights or economic benefits of the CDR, shall be liable for the social cost, as determined by the department pursuant

to section 75-0113 of this chapter, of any CO2e leakage or reduction in CDR durability.

4. There shall be no liability under this subdivision for a person otherwise liable who can establish by a preponderance of the evidence that the CO2e leakage or reduction in CDR durability were caused solely by:

a. an act of God;

b. an act of war; or

c. an act or omission of a third party other than an employee or agent of the bidder.

§ 76-0111. Reverse auction funding.

Funding for the authorized five year reverse auction period, beginning in the year two thousand twenty-five and ending in two thousand twenty-nine, shall be derived entirely from state revenues that have been accrued in preceding tax years from certain reinstated tax revenues on aviation gasoline which is imported or caused to be imported into this state by a petroleum business which is registered under article twelve-A of the tax law as a distributor of motor fuel or produced, refined, manufactured or compounded in this state by such a petroleum business.

§ 76-0113. Carbon dioxide removal and equity survey.

1. Prior to the initiation of the reverse auction, the department shall publish a survey of CDR opportunities within the state. Such survey must include, but may not be limited to:

a. Data gathered by the department pursuant to CDR verification as required by section 76-0109 of this article;

b. Review of CDR processes in New York state with 0.1Mt or greater current scale potential and one-hundred-year or greater durability, with a discussion for each of water and land-use requirements, LCA, potential harms, and potential co-benefits, including jobs, industrial development, ecosystem, and environmental equity and social justice; and

c. Reference to all prior reverse auction awards and projects completed in previous years, including all data related to each CDR process employed in each bid.

2. The completion of the survey shall incorporate participatory research and design methodologies and activities that afford direct engagement between the department and members of disadvantaged and environmental justice communities throughout the state. Such activities shall be carried out on a regional basis and will enable community members to solicit information from the department concerning the objectives, and intended benefits and outcomes of the procurement program; and to offer direct comment and suggestions related to the program's design, implementation and shared community benefits.

3. Provided the state has reauthorized funding of the reverse auction pursuant to section 76-0111 of this article, the department shall update the survey no less than every five years.

§ 76-0115. Authority and compliance.

1. Nothing in this article shall limit the existing authority of a state entity to adopt and implement greenhouse gas emissions reduction measures, including carbon dioxide removal.

2. Nothing in this article shall relieve any person, entity, or public agency of compliance with other applicable federal, state, or local laws or regulations, including state air and water quality requirements, and other requirements for protecting public health or the environment.

3. Review under this act may be conducted in a proceeding under article seventy-eight of the civil practice law and rules at the instance of any person aggrieved.

§ 76-0117. Severability.

If any word, phrase, clause, sentence, paragraph, section, or part of this article shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the word, phrase, clause, sentence, paragraph, section, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

§ 3. Subdivision (f) of section 301-e of the tax law is REPEALED.

§ 4. Paragraph 9 of subdivision (a) of section 1115 of the tax law is REPEALED.

§ 5. This act shall take effect immediately.