

Assessment of Public Comments 6 NYCRR

Part 496, Statewide Greenhouse Gas Emission Limits

Comments received from August 19, 2020 through October 27, 2020

In August 2020, the New York State Department of Environmental Conservation (Department or DEC) proposed regulations pertaining to the establishment of statewide greenhouse gas emission limits, as required by the Environmental Conservation Law (ECL) § 75-0107, as added by the Climate Leadership and Community Protection Act, Chapter 106 of the Laws of 2019 (CLCPA or Climate Act). Notice of the proposed rulemaking appeared in the August 19, 2020 State Register as well as in the DEC's Environmental Notice Bulletin. Public comments were received from August 19, 2020 through 5 pm on October 27, 2020. Virtual public hearings were held on October 20, 2020 at 2:00pm and 6:00pm. This Assessment of Public Comments responds to all substantive comments received during the public comment period, including written comments as well as oral statements made at the two virtual public hearings. Comments were compiled, reviewed, and categorized based on their content.

General Comments

Comment 1: The Commenters noted appreciation for the rule, DEC's efforts in estimating the 1990 baseline as required by the Climate Act, the importance of this baseline for the implementation of the CLCPA, and the inclusion of specific emission sources such as livestock and waste. (Commenters 3, 4, 5, 9, 10, 11, 12, 16, 17, 18, 24, 27, 29).

Response to Comment 1: The Department appreciates these acknowledgements and agrees. As discussed in the Regulatory Impact Statement (RIS) and further in the Assessment of Public

Comments below, the Department included gross greenhouse gas (GHG) emissions from all sources, as specified in the CLCPA, in the 1990 estimated emission baseline.

Comment 2: The Climate Act requires consultation with the New York State Climate Action Council. (Commenters 4, 20)

Response to Comment 2: The Climate Act directs the Department to “consult with the council, stakeholders, and the public” and the Department has done so. ECL § 75-0107(3). In addition to its pre-proposal outreach to stakeholders and the general public, the Department held meetings with Council members by request, considered the materials shared by Council members, updated the Council on the status and substance of this rulemaking at every Council meeting, and invited Council members to all public meetings.

Comment 3: The commenter appreciates that DEC applied a Global Warming Potential (GWP) of 86 for methane. (Commenter 4)

Response to Comment 3: To ensure greater clarity, the final rule includes a non-substantive revision to include a new Section 496.5. This new section provides a table of all gases included in the rule and their carbon dioxide equivalent values (CO₂e), using the 20-year global warming potential (GWP₂₀) as provided in the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. This does not change the values in the final rule from those in the proposal as, previously, DEC proposed incorporating that same report by reference.

In the proposed rule, DEC applied the GWP20 to all gases, as required by the CLCPA. ECL § 75-0101(2). However, as stated in the RIS, DEC did not apply the metric “with feedbacks” as this is associated with higher uncertainty and is not recommended by the IPCC. DEC also did not use the “fossil methane” value that would double-count carbon dioxide emissions. As such, the GWP for methane applied in this rule is 84.

Definitions

Comment 4: The proposed definition of “greenhouse gas” must be revised. "Regulations of state agencies must faithfully implement the letter and the intent of the statutes that authorize them"... "even if the Department believes that improvements in the statutory definition are needed, its authority is limited to recommending such a change to the Legislature. Until and unless the ECL is amended, the definition in the statute must be restored to any adopted regulations." (Commenter 20)

Comment 5: Additional substances should be included in the rule. Suggestions included ozone-depleting substances, nitrogen trifluoride (NF₃), and “solid and liquid aerosols and particulates that can also have indirect effects such as through interactions with cloud microphysics and other properties.” (Commenter 9, 10, 20)

Response to Comments 4 and 5: DEC disagrees with any implication that the regulatory definition of “greenhouse gas” in Part 496 is inconsistent with the statutory definition of “greenhouse gas” set forth in the CLCPA. ECL § 75-0101(7). A regulatory definition that is part of implementing a statutory provision need not exactly match a definition in statute, provided that the regulatory provisions are consistent with the statute and that the intent of the enabling statute is addressed.

In this case, the statutory definition of “greenhouse gas” in the CLCPA lists six specific types of gases that are explicitly part of the definition, and also includes an additional open-ended phrase that captures an indeterminate amount of other substances within the definition. In particular, the phrase “and any other substance emitted into the air that may be reasonably anticipated to cause or contribute to anthropogenic climate change” does not clearly list the substances considered within the statutory definition of “greenhouse gas” subject to the regulation. DEC must determine the precise meaning of this statutory phrase through regulation in order to effectively implement the Climate Act.

The proposed rule applied the IPCC definition of “greenhouse gas” as it is scientifically accurate, appropriately precise to indicate which substances are subject to this regulation, and reflects the set of gases that are covered by the United Nations Framework Convention on Climate Change (UNFCCC). However, DEC has revised the rule to further clarify the term by specifically listing each individual gas that is subject to this regulation and within the regulatory definition of “greenhouse gas”. The rule now includes a new Section 496.5 with a table of all affected substances along with their GWP20 per the IPCC 5th Assessment Report. See also Response to Comment 3. The definition of “greenhouse gas” has been clarified in the final rule to make clear that it includes the six specified gases in the statutory definition, as well as those substances listed in the table in Section 496.5. DEC may consider adding substances as necessary to Section 496.5 as needed and as scientific information is made available.

DEC developed its proposal to reflect the intent of the Climate Act and to be as consistent as possible with the model provided by United Nations (UN), on which this portion of the law is based. Specifically, the law requires a 1990 baseline and reporting in terms of “carbon dioxide equivalent” emissions using a GWP20 metric. These two requirements are directly derived from

the IPCC guidance used by parties to the UNFCCC in annual emissions reporting and in establishing their emission reduction commitments. This application of the UN model is consistent with the references to the UNFCCC, IPCC, and Paris Climate Agreement in CLCPA § 1, Legislative findings and declarations. The emission reduction requirements in the CLCPA also closely match the goals that various jurisdictions have adopted to align with commitments to the UNFCCC, such as a 40% reduction by 2030 and 80-85% reduction by 2050, from 1990 levels. DEC is unaware of any assessment of how such statutory limits would be affected by substances beyond the well-mixed greenhouse gases included in the UNFCCC, included in the regulatory definition in subdivision 496.3(c), and listed in the table in Section 496.5

While it may be appropriate to include NF_3 in the definition of “greenhouse gas” and the table described, as NF_3 has recently been added to the UNFCCC, these emissions were virtually nonexistent in 1990 and are negligible in New York State today. Therefore, DEC has added NF_3 to the definition of “greenhouse gas” in Part 496, but this has no effect on the estimated 1990 GHG emission baseline or the 2030 and 2050 statewide GHG emission limits in the rule given the virtually nonexistent amount of NF_3 emissions in 1990. As described in the Revised RIS, estimated NF_3 emissions in the State in 1990 would be approximately 0.0005 million metric tons CO_2e (GWP20)

The UNFCCC has also considered including other fluorinated GHGs, such as (trifluoromethyl) sulfur pentafluoride and sulphuryl fluoride. The IPCC also provides CO_2e values for halogenated alcohols and ethers. DEC may propose including these or other substances in the regulatory definition of “greenhouse gas” in the future, consistent with the statutory definition in the Climate Act.

Finally, DEC does not agree that other substances suggested by commenters should be included in the proposed rule at this time. For purposes of this rulemaking, the rule best serves the intent of the Climate Act if the definition of “greenhouse gas” is consistent with the IPCC guidance to the UNFCCC. The definition of “greenhouse gas” included in Part 496 is consistent with the statutory definition of this term as well as with the overall statewide GHG emission limits established in the Climate Act. Many of the substances that the commenters may wish to have included in the regulatory definition are not included in the IPCC definition of “greenhouse gas,” and are omitted in UNFCCC agreements, for legitimate and scientific reasons. For example, some substances, such as aerosols, are not well-mixed GHGs and so are not easily measured in units of carbon dioxide-equivalence (as required by the CLCPA). The IPCC 5th Assessment Report does not provide a GWP20 metric for such substances. Given that the sources of these emissions are also covered by policies to address GHGs and air pollution, the Department does not anticipate any meaningful effect or regulatory gap by the exclusion of such substances from the definition of “greenhouse gas.” With regard to ozone-depleting substances, their inclusion in this rule would undermine the intent of the statute to reduce GHG emissions in line with the UNFCCC. The UNFCCC has not included these substances because they are subject to a separate, earlier treaty that drove a phase-down in many powerful GHGs. If these gases were added to the 1990 baseline, it would appear that New York State has already achieved a significant reduction in GHG emissions. This apparent reduction would not align with national or international standards and would be inconsistent with the intent and requirements of the Climate Act.

Comment 6: The definition of “statewide greenhouse gas emissions” should be closed with the additional statement, “which may be reduced to account for the greenhouse gas attributes of the upstream electric and fuel supply.” (Commenter 3)

Response to Comment 6: This is already accommodated in the structure of the CLCPA, including the statutory definition of “statewide greenhouse gas emissions” in ECL § 75-0101(13), as well as in the regulatory definition of “statewide greenhouse gas emissions” in subdivision 496.3(g). As described in the RIS, the Climate Act defines statewide GHG emissions as including emissions associated with imported electricity and fossil fuels. The estimated 1990 GHG emission level in Part 496 includes GHG emissions from imported electricity and imported fuels. DEC expects that changes in the “attributes” associated with imported fuels and electricity will be further captured in the annual report, which will be subject to a separate non-regulatory process as set forth in a separate section of the Climate Act (ECL § 75-0105).

Emission Limits

Comment 7: The proposed rule does not meet the requirements of the law because limits were not “identified for each individual type of greenhouse gas.” (Commenter 17, 20, 21, 22, 29)

Response to Comment 7: DEC determined that, based on the overall statutory language and structure as well as the intent of the Climate Act, the rule would establish one collective statewide GHG emission limit for all GHGs for each relevant year. Because the statewide GHG emission limits in the rule address all individual types of GHGs, the rule meets the requirement of the referenced statutory provision to “identify” limits for each individual type of GHG.

DEC did not otherwise establish separate and distinct limits on individual gases or “types of gases” for several reasons. First, the statutory language does not define the term “types of greenhouse gas” or provide any context as to how this term should be interpreted and implemented. The most recent IPCC Assessment Report lists over 200 GHGs, the majority of which are omitted from UNFCCC commitments referenced in the CLCPA. As explained in Response to Comment 3 and Response to Comments 4 and 5, the Department included a new Section 496.5 in the final rule which lists all substances covered by the regulatory definition of “greenhouse gas.” The rule has set a limit for all such types of “greenhouse gas”, i.e., the set of gases prioritized by the UNFCCC and included in the table in Section 496.5.

Second, the approach adopted by the Department in the final rule is consistent with the statutory language in the CLCPA. A different approach that would establish separate and distinct emission limits for each of up to 200 or more individual gases would conflict with other requirements of the Climate Act. For example, the statutory definition of “statewide greenhouse gas emissions limit” refers to the “maximum allowable level of statewide greenhouse gas emissions in a specified year” ECL § 75-0101(14). The term “statewide greenhouse gas emissions” is in turn defined as “the total annual emissions of greenhouse gases produced within the state from anthropogenic sources and greenhouse gases produced outside of the state” that are associated with imported electricity and fossil fuels. ECL § 75-0101(13). This definitional language suggests a collective approach that takes into account all GHGs when identifying the emission limit. The Climate Act further requires that GHGs subject to the statewide emission limits be measured in tons of CO₂e and as a percentage of 1990 emission levels. ECL §§ 75-0101(2) and (8) and 75-0107. Taken together, these provisions would be inconsistent with the Department establishing separate and distinct limits for each individual type of greenhouse gas as part of this rulemaking. The CO₂e

metric compares individual gases to carbon dioxide. The 1990 baseline is only relevant when aligning a goal with the UNFCCC goals. Otherwise, the sources of emissions have changed considerably in the past 30 years.

Third, the establishment of separate and distinct limits for each individual type of gas would be inconsistent with other provisions of the Climate Act and with the overall structure of the statute. The approach adopted by the Department in the final rule most closely aligns with the intent of the Climate Act. For example, as set forth in the Legislative findings and declarations, the legislation is intended to help the State achieve emission reductions that are aligned with what the United States Global Change Research Program (USGCRP) and IPCC have stated is needed to mitigate climate change (CLCPA § 1 “Legislative findings and declarations”).

Finally, as described in the RIS, the Department’s adoption of Part 496 is foundational to multiple components of the overall implementation of the Climate Act. As set forth in the RIS, while this rule establishes the baseline limit against which emission reductions under the CLCPA will be measured, it does not impose a compliance requirement on any entity. Similarly, the CLCPA contemplates that the Climate Action Council (Council) will make recommendations as part of the Scoping Plan regarding measures to achieve the statewide emission limits, including subsequent rulemaking by the Department or other State agencies. Both the Council’s recommendations in the Scoping Plan and future substantive rulemaking by the Department and other State agencies must include measures that impose enforceable requirements on individual sources of greenhouse gases. At this preliminary stage in the overall implementation of the CLCPA, consistent with this overall structure of the statute, the Department is not seeking through this rulemaking to make significant policy decisions regarding the level of emission reductions required for each type of GHG emission source. If the Department were to establish limits on individual types of greenhouse

gases, it would conflict with this statutory objective and structure, because it may prematurely suggest or establish the relative amount of emission reductions necessary from each sector or type of source.

Comment 8: It is necessary to place limits on individual GHGs in order to prioritize efforts to address the different GHGs. Omitting this, “deprives the scientific community, regulated parties and other interested members of the public of the opportunity to evaluate and suggest improvements to the Department’s conception of which types of greenhouse gas emissions should be prioritized in the short-term future.” (Commenter 20)

Response to Comment 8: As described above in Response to Comment 7, the Department is not seeking to establish any such prioritization through this rulemaking, as this will be established pursuant to recommendations of the Council, future rulemaking by the Department and other agencies, and other policy decisions. Regardless, the Climate Act itself establishes an initial prioritization by requiring GHGs to be measured using the GWP20 metric, rather than the standard 100-year metric, which demonstrates that the Legislature intended to prioritize certain short-lived GHGs. However, as described above, the GWP metric is intended to combine GHGs so they can be addressed holistically. DEC applied no other prioritization as no other prioritization is mentioned in the CLCPA nor appropriate for purposes of this rulemaking.

Emission reduction strategies are developed through policy and are, in practice, based on current emission levels in order to address current emission sources. An emission reduction strategy based solely on emission sources as they existed thirty years ago in 1990, which serves as the basis for the emission limits established in Part 496, would not be sufficient. The separate process under the

Climate Act requiring the development of a statewide greenhouse gas emission report, which the Department must complete by the end of 2021 and update annually thereafter, will allow the Department to further consider these issues. Similarly, the statutory structure described in Response to Comment 7, which contemplates the ongoing development and consideration of emission reduction strategies, allows for further prioritization as contemplated by the commenter. Finally, DEC also questions the value of managing GHGs separately at this point through this rulemaking, since the majority of emission sources are associated with multiple GHGs (e.g., all fossil fuel combustion sources are associated with carbon dioxide, methane, and nitrous oxide) or are targeted by policies that also affect other GHGs (e.g., electrification strategies affect hydrofluorocarbon (HFC) emissions). Other portions of the CLCPA that are outside of the scope of this rule are better suited for developing this prioritization, including the Scoping Plan to be developed by the Council per ECL § 75-0103. This is how the UNFCCC model and the models of other jurisdictions operate, such as the California “Scoping Plan”.

Comment 9: Commenters list examples where other states have either statutory goals for individual pollutants or have recognized the importance of regulations for specific pollutants. (Commenters 17, 22)

Comment 10: Individual limits are needed to prioritize short-lived GHGs and/or short-term policy. (Commenters 20, 22)

Response to Comments 9 and 10: DEC appreciates the information, but the commenters did not explain how targets for individual types of GHGs or strategies for short-term policy action relate to the required 1990 baseline. As described above in Response to Comments 7 and 8, the Climate

Act itself establishes an initial prioritization on short-lived GHGs through the use of the GWP20 metric. Moreover, the statewide GHG emission limits in the rule address all individual types of GHGs, meaning that the rule meets the requirement to “identify” limits for each individual type of GHG. The commenters cite goals in other jurisdictions that use a more recent baseline year or that are a part of planning for overall GHG reductions. For example, hydrofluorocarbon (HFCs) are short-lived, man-made GHGs that did not exist or were not in use in 1990, but that are currently used in refrigeration, insulation, flame retardants, and as aerosol propellants. California’s statutory goal would reduce HFC emissions 40% from 2013 levels by 2030, leaving over 9 million metric tons in CO₂e emissions (using a 100-year GWP; this would be higher using a 20-year GWP). The California goal reflects an assessment of current GHG emission sources and the time needed to transition to alternatives. DEC agrees that establishing such a goal may help the State of California direct emission reduction strategies, but unlike the CLCPA and the Department’s required action through this rulemaking, the California example does not reference a 1990 baseline year. California’s HFC goal is used to help the state achieve an overall GHG emission limit for 2030 that is the same as that required by the CLCPA (also 40-by-30; California SB32). Since HFCs represent a significant source of emissions that was added after 1990, California, like New York State, will need to undertake planning across all types of GHGs and emission sources to achieve the overall reductions called for by the USGCRP and IPCC.

Comment 11: Some commenters suggested additional or alternative emission limits, including interim limits to maintain momentum or targets that recognize the long-term impacts of GHGs. Otherwise the law over-emphasizes the role of methane or under-emphasizes the role of carbon

dioxide by applying the 20-year rather than the more standard 100-year GWP. (Commenters 1, 5, 29)

Response to Comment 11: DEC appreciates these comments, but is not currently proposing statewide emission limits through this rulemaking other than those required in the CLCPA. The Council may recommend interim emission limits or other measures as part of the Scoping Plan, and the Department may consider enactment of such measures through future regulation. Finally, as described above in Response to Comments 7 and 8, the statute itself established an initial prioritization through the establishment of the GWP20 metric. It is necessary and important to recognize that no one metric, either the 20- or 100-year GWP, fully depicts the impacts from various GHGs.

Gross or Net Emissions Accounting

Comment 12: The term “gross” is not used in the CLCPA. (Commenters 3, 17)

Comment 13: DEC’s approach, which uses gross accounting, is different from the IPCC guidance used by parties to the UNFCCC, related methods used by other subnational governments or organizations, and State energy planning. Net emissions accounting, such as used by the IPCC in various reports, represents the best available science. (Commenters 3, 8, 15, 16, 27, 31)

Response to Comments 12 and 13: DEC disagrees that the rule is required to apply the IPCC guidance or be identical to accounting required by the UNFCCC as this is not articulated in the Climate Act. In fact, the CLCPA requires specific deviations from that model. These deviations are laid out in the RIS and include the addition of emission sources outside of the State (e.g., emission associated with imported electricity and fuels) and the use of the GWP20 metric. In this

way, the CLCPA has established a new framework for emissions accounting that is indeed different from that used in other jurisdictions and in past State energy planning.

Nevertheless, DEC's approach is consistent with the UN model with regard to gross and net emissions. The term "gross" is commonly reported alongside "net" emissions, such as in the annual United States national inventory, which follows the UN model. As described in the United States national inventory, "The gross emissions total presented in this report for the United States excludes emissions and removals from Land Use, Land-Use Change, and Forestry (LULUCF)." Similarly, the 1990 baseline used in this rule includes emissions and excludes removals from the IPCC categories referred to as LULUCF.

DEC applied the term "gross" in this rule because the law refers to two emission targets for 2050, one of which is referred to as a "net" zero emission goal. This regulation addresses only one of these two statutory emission targets for 2050: the 85x50 emission limit established in ECL § 75-0107. This rule does not directly address the separate net zero emission goal set forth in ECL § 75-0103(11). As discussed in the RIS, given these two separate statutory directives and the fact that only the former applies directly to this rulemaking, the Department developed the statewide GHG emission limit in this rule as a "gross" limit. Otherwise the rule would inappropriately include two different emission limits for 2050.

Commenters may be referring to the concept of "carbon neutrality" as applied to biogenic fuels, which is discussed in more detail in additional response to comments below. As described in the RIS, carbon dioxide emissions associated with biogenic fuel combustion for energy purposes are reported by parties to the UNFCCC, but they are omitted from national totals to avoid double-counting carbon losses on lands where the feedstocks were harvested. These emission sources are

not omitted because they have no effect on climate change or because it is assumed that their impact is neutralized on a net basis.

Comment 14: The CLCPA 2050 net zero goal is meant to include both net emissions as typically defined by the UN (or total emissions minus total removals) and “offsets” through the CLCPA’s Alternative Compliance Mechanism. This allows for more than 15% of emissions in 2050 to be accounted for on a net basis. (Commenters 17, 27)

Response to Comment 14: The term “offsets” is only used in the statute to refer to an optional and separate “Alternative Compliance Mechanism” (or ACM; ECL § 75-0109(4)). The ACM is a mechanism that the Department may choose to adopt; the Department is not required to do so. Only if the Department chooses to adopt an ACM would its various provisions come into play. This use of the term “offsets” in the Climate Act is consistent with the most common use of the term in climate change policy, i.e. as a compliance mechanism in cap-and-trade or other market-based programs. Neither the term offsets nor the ACM are referenced in the requirements established for either the statewide emission limits established in this rulemaking or the separate net zero goal.

As described in the RIS and in Response to Comments 12 and 13, Part 496 establishes statewide GHG emission limits on a gross basis. Neither the rule itself nor the statutory provision it implements – ECL § 75-0107 – directly address net emissions or the ACM. Therefore, this rule is not intended to address certain issues regarding the potential use of an ACM, such as how offsets might be used to address GHG emission sources that remain in 2050 or how the pool of potential offsets differs from sources that are already subject to the emission reduction requirements of the

Climate Act. If DEC adopts an ACM, ECL § 75-0109(4) requires that offsets occur in a close geographic area. If statewide emission reductions and sequestration are maximized in 2050 to achieve the limits and net goal, there may be limited opportunities for “additional” in-State offset projects. While these and other issues will need to be addressed if the Department adopts an ACM, they are not directly related to this rulemaking.

Several state and national governments have adopted net zero, or carbon neutrality, goals. DEC is unaware of any jurisdiction that reports offsets as part of its inventories of gross and net emissions. These jurisdictions still follow the UN model.

Comment 15: DEC’s approach ignores progress that could be achieved through net emissions, such as through carbon sequestration in forests, which will make it difficult for the State to achieve the CLCPA’s goals. If carbon is sequestered faster than it is released, then NY is not contributing to climate change. (Commenters 16, 27)

Response to Comment 15: DEC has not proposed that the State abandon net reporting of emissions and agrees that carbon removals are a key part of the State’s strategy to meet the goals of the Climate Act. While this rulemaking establishes the emission limit baseline, it does not itself foreclose any particular policy option, including policies directed at increasing carbon sequestration in forests.

As described in the RIS, the Scoping Plan is required to address both the statewide emission limits established pursuant to ECL § 75-0107 in Part 496, and the separate net zero goal. Net emissions will be reported alongside gross emissions in annual reporting per ECL § 75-0105.

Finally, while not directly related to this rulemaking, DEC notes for context that the CLCPA-required framework for estimating the statewide emissions results in a total volume of emissions of over 400 million metric tons (mmt) of CO_{2e} emissions, 15% of which is over 60 mmt. The United States Forest Service estimates that the State's forests remove slightly under 30 mmt of CO_{2e} emissions and have been doing so at a roughly equal rate since 1990. DEC fully recognizes the importance of the State's natural carbon sinks for achieving the CLCPA goals and the need for new, transformational policies to protect and enhance these resources.

Comment 16: Net emission reductions are a necessary compliance strategy, including for upstream, downstream, and out of state sources. (Commenter 3)

Comment 17: The DEC's approach will strand clean energy assets. (Commenter 3)

Response to Comments 16 and 17: The commenter could be referring to direct compliance with a policy adopted by New York State, such as an emission standard applied to in-state stationary sources, or generally to the consideration of policies, such as in the Scoping Plan. However, as described in the RIS, this regulation does not impose a compliance requirement on any individual entity. While foundational to the State's overall implementation of the CLCPA, this regulation does not directly address policy design, GHG emissions from specific sources, or apply net accounting to upstream, downstream, or out of state GHG emission sources. Net emissions accounting, as will be used to track progress on achieving the net zero goal, is applied to total GHG emissions and will be reported alongside gross GHG emissions as part of the annual statewide GHG emission report as separately required by ECL § 75-0105.

Biogenic Emissions and Fuels

Comment 18: Commenters found that the best available science indicates that biogenic fuels (i.e., plant-based fuels such as wood and renewable natural gas) have no effect on climate change or are lower emission than fossil fuels. As such, the DEC proposal to include carbon dioxide emissions from the combustion of these fuels is incorrect. DEC should not treat biogenic emissions the same as “geologic” emission sources. (Commenters 3, 14, 15, 18, 30, 31)

Comment 19: New York State should not automatically assume carbon neutrality or blindly follow the IPCC guidance as it relates to biogenic fuels. (Commenters 17, 30).

Response to Comments 18 and 19: As described in the RIS and in responses to comments in the “Gross or Net Emissions Accounting” section above, Part 496 establishes statewide GHG emission limits on a gross basis. On this basis, the carbon dioxide released from the combustion of plant material has the same effect as carbon dioxide emitted from the combustion of fossil fuels; any source of carbon dioxide can contribute to climate change. The atmospheric concentration of carbon dioxide will not be reduced until the rate at which it is removed from the atmosphere outpaces the rate at which it is added, when measured on a net basis. As explained in the RIS and above, both gross and net emissions will be reported in the separate annual GHG emission report required under ECL § 75-0105, and Part 496 does not itself foreclose any particular policy option with respect to the treatment of biogenic emissions under the CLCPA.

Neither the Department nor the UN automatically assume carbon neutrality as it relates to all biogenic fuels. Land management strategies, including the growth and harvesting of plant materials, can be used to increase the rate of carbon dioxide removals. However, the IPCC guidance used by the UNFCCC does not automatically assume that energy crops are carbon

neutral. As explained in the RIS, the UN model addresses these GHG emissions separately through reporting of land-based GHG emissions. Theoretically, if all lands across the globe were managed to sustain a growing volume of GHG emission removals to coincide with GHG emissions from fuel combustion, then such fuel combustion would be neutralized.

Comment 20: The CLCPA requires that this regulation include emissions associated with imported fossil fuels. DEC should expand the scope of the CLCPA so that it also includes the lifecycle emissions of imported biogenic fuels, specifically wood pellets. Otherwise, fuel producers in New York State will be disadvantaged because they will be subject to regulations that are not imposed on out-of-state producers. In the absence of such a policy, fuel producers will leave the state thereby leading to leakage. (Commenters 8, 13, 19, 25, 31)

Response to Comment 20: The scenario that commenters pose assumes a series of events that goes well beyond this rule and presupposes that no additional policies will be needed to meet the myriad goals of the CLCPA (including to reduce leakage) and that industries, stakeholders, and the public will have no opportunity to provide input regarding the development of such policies. The commenters also did not discuss how future State policies may seek to enhance carbon sequestration or reduce waste-based methane, which may be a benefit of some biogenic fuel production.

The sole intention of this rule is to establish a framework for measuring and reporting estimated 1990 levels of “statewide” emissions of GHGs that are driving climate change. This allows the Department to translate the statewide GHG emission limits established on a percentage basis in ECL § 75-0107 into tonnage-based limits measured in CO₂e (GWP20). As described in the RIS,

the CLCPA itself requires that certain out-of-state lifecycle fossil fuel emissions are part of statewide GHG emissions. ECL § 75-0101(13).

It would not be appropriate to design the rule's accounting methodology to address any potential competitive disadvantages among fuel producers. This rule does not attempt to pick "winners and losers". DEC knows of no national or subnational government inventory that includes extra-jurisdictional emissions in its GHG inventory, including the national inventory of the United States. The CLCPA deviates from this by including emissions associated with imported fossil fuels and electricity. Instead, these inventories are intended work in tandem with a variety of policies that may address intra and extra-jurisdictional emission sources, fuel switching, and other related areas. Such policies need not measure the same emission sources or measure them in the same way. In other words, this rule does not directly address the State's treatment of out-of-state non-fossil fuel GHG emissions, as this may be addressed as part of future policy actions to implement the Climate Act.

The California Low Carbon Fuel Standard (LCFS), for example, uses lifecycle-based measurements and considers emissions outside of the state, but the California GHG inventory does not. Importantly, the commenters assume that in-state fuels would necessarily have an advantage in a lifecycle-based accounting, but they provide no assessment of this. DEC notes that most of the lowest Carbon Intensity fuel pathways in the California LCFS are not produced in California.

Comment 21: A commenter noted that this regulation should account for the emissions from biomass and biofuels and from harvesting and combustion and ensure that emissions are accurately estimated. Another commenter states that the RIS made unsubstantiated assertions, including that

the annual rate at which the land use sector removes emissions has been declining in the United States since 1990. (Commenters 3, 17)

Response to Comment 21: DEC agrees that, under the CLCPA, the State must accurately portray the impacts of land management in terms of gross and net emissions. Indeed, that is the intention of both this rulemaking and the separate forthcoming annual report required by ECL § 75-0105. With regard to the statement in the RIS regarding the importance of proper accounting and the concern regarding sustainable land use, the sentence in question is referring to the national GHG inventory which was cited elsewhere in the RIS. From the United States Environmental Protection Agency's (EPA) 2020 report, "Total C sequestration in the LULUCF sector decreased by approximately 7.1 percent between 1990 and 2018. This decrease was primarily due to a decline in the rate of net C accumulation in Forest Land and Cropland Remaining Cropland, as well as an increase in emissions from Land Converted to Settlements."

Comment 22: Commenters expressed concern that the inclusion of biogenic fuel emissions will have unintended impacts on bioenergy. Comments included that the RIS did not anticipate future renewable fuel needs; DEC should have considered the need for "low carbon" and dispatchable fuels; DEC should have considered the benefits of waste-based fuels such as residual wood products; DEC should not pick winners and losers and if DEC intended to do so it should be required to complete an environmental assessment. (Commenters 3, 14, 15, 16, 31)

Comment 23: Previous reports from New York State or other jurisdictions, including a report provided to the Council, indicated that renewable fuels would be an important part of the State's energy and climate strategy. (Commenters 3, 16, 18)

Response to Comments 22 and 23: As stated above in Response to Comment 20, the sole intention of this rule is to establish a framework for measuring and reporting estimated 1990 levels of statewide emissions of greenhouse gases that are driving climate change. It would not be appropriate to design that accounting methodology to address any potential competitive disadvantages among fuel producers. This rule does not attempt to pick “winners and losers.” Likewise, as described in Responses to Comments 15 and 18 and 19, this rule does not itself foreclose any particular policy options for the State as it continues its implementation of the Climate Act, including with regard to renewable fuels.

Comment 24: Gross emissions accounting should only be applied to the 1990 baseline. Biogenic sources shouldn't be subject to CLCPA. (Commenter 3, 31)

Response to Comment 24: DEC appreciates the suggestions but, as described in the RIS and in responses to comments in the “Gross or Net Emissions Accounting” section above, Part 496 establishes statewide GHG emission limits on a gross basis, including certain biogenic gross emissions. While the commenter's suggestion would not be consistent with the requirements of the CLCPA for purposes of this rulemaking, as noted the Department intends to report both gross and net emissions as part of the separate annual GHG emission report required under ECL § 75-0105. Finally, this rule does not itself foreclose any particular policy options for the State as it continues its implementation of the Climate Act, including with regard to biogenic emissions.

Energy Sector Comments

Comment 25: Commenters cited the benefits of lifecycle assessments, particularly for estimating emissions associated with fuels. These comments included that the proposed approach to accounting for out-of-state emissions through lifecycle assessment is innovative; applauding the use of the “Greenhouse gases, Regulated Emissions, and Energy use in Transportation” (GREET) model for estimating fossil fuel emissions; remarking that lifecycle assessments such as that used in LCFS policies can incentivize the use of cleaner fuels; and suggesting that the gross accounting approach disincentivizes fuels that have a negative carbon intensity in the LCFS. (Commenters 16, 18)

Response to Comment 25: Lifecycle assessments are typically distinct from the types of methods historically used for governmental GHG accounting. This is because lifecycle assessments are typically static, rather than updated on an annual basis, and cover emissions over a wide geographic area, rather than within a specific jurisdiction. New York State had not previously used lifecycle assessments for the purposes of annual GHG emissions reporting. However, as described in the RIS, the CLCPA requires that DEC also incorporate emissions from certain sources outside of the state, i.e., those associated with imported fuels. ECL § 75-0101(13). As described in the RIS, DEC consulted with the New York State Energy Research and Development Authority (NYSERDA) to develop a lifecycle approach for addressing these emissions. DEC will continue to evaluate this approach and if other alternative approaches are deemed superior, DEC may reconsider this approach.

LCFS policies use lifecycle assessment to assess the environmental impacts of different fuels. However, as described above in Responses to Comments 20 and 22 and 23, the development of policies to incentivize specific types of fuels is beyond the scope of this rule. Additionally, while beyond the scope of this rulemaking, lifecycle assessment and LCFS policies do not address the

gross versus net emissions issue cited by the commenters. LCFS policies may evaluate a variety of emission sources associated with biogenic fuels, but they do not attempt to test or validate carbon neutrality. If DEC were to incorporate lifecycle emissions for biogenic fuels into the current rule, this would be in addition to combustion emissions. Additionally, fuels with a negative carbon intensity in an LCFS are those associated with reduced methane. However, a lifecycle assessment is not needed to incorporate this benefit into this rule as methane emissions are already included. These issues may be addressed as part of any future consideration of an LCFS or other similar policies to implement the CLCPA.

Comment 26: The 1990 baseline estimation for fugitive methane needs scrutiny, if it is too low and will not capture the emission reductions that industry has made in the past. (Commenter 12).

Comment 27: Commenters support the use of “bottom-up” analyses as these are consistent with historical air quality regulations and result in more accurate assessment of emission sources needed to identify emission reduction opportunities. “Top-down” analyses can’t be verified for 1990 and do not provide adequate spatial resolution to assess current emissions so they should not be used in this rule or the annual report. (Commenter 26)

Comment 28: Recent “top-down” analyses show that “bottom-up” assessments are underestimating methane emissions. To reconcile these two approaches, some commenters supported the use of a single, blanket emission factor be applied to natural gas in all years, as provided by Robert Howarth. Others do not cite this author but noted the need to address the underestimation of fugitive methane. (Commenters 4, 11, 17, 29)

Comment 29: The commenters acknowledge that the “top-down” information is more important for later years or note that they expect fugitive methane emissions to be higher in later years. (Commenter 4, 17)

Response to Comments 26, 27, 28, and 29: DEC appreciates the various positions that the commenters have taken on this issue. The Department acknowledges their concerns that different methods could over- or under-estimate methane emissions associated with the extraction, processing, transmission and distribution of fossil fuels in 1990 and that this baseline will affect the rest of the timeseries. Much of this concern is due to the uncertainty inherent in estimating fugitive emissions from three decades ago using imperfect data.

As stated in the RIS, DEC does not consider it appropriate at this time to apply results from recent top-down analyses to the 1990 baseline, even if such analyses may be appropriate for estimating emissions for current or future years. DEC will continue to make improvements to the 1990 baseline as needed. If future research enables the Department to use top-down analyses to inform the estimation of historical GHG emissions, DEC can revise this rule as appropriate. However, DEC notes that any increase in the GHG emissions associated with the 1990 baseline will increase the statewide emission limits. DEC did not consider whether the annual report will show GHG emission levels that are higher or lower than the 1990 baseline and does not believe that this assumption should be made at this time.

Comment 30: Additional information is needed to understand the estimation of the 1990 baseline and if the “best available” information was used, such as fuel volumes. Commenters asked why

the CLCPA required this rule to be promulgated prior to the full annual report if that report would provide this information (ECL § 75-0105). (Commenters 1, 3, 26)

Response to Comment 30: The RIS provided an explanation of the methods and data sources used in the estimation of the 1990 baseline. The Department agrees that the CLCPA separately calls for additional, detailed information in the annual report, the first of which is due by the end of 2021 pursuant to ECL § 75-0105. For example, the RIS explained that the source of data for fuel volumes is the same as in previous State inventory reports, i.e., federal data reported by NYSERDA in their annual Patterns and Trends report. Any exceptions were explained in the text of the RIS.

Comment 31: Commenters did not think that the RIS provided a sufficient summary of the literature regarding top-down and bottom-up GHG emission estimation or cited specific references that they think should have been cited. (Commenters 1, 3)

Comment 32: DEC should conduct an assessment of the literature and evaluate the extent to which top-down approaches have been tested in urban areas before applying this approach to GHG accounting. (Commenter 27)

Response to Comments 31 and 32: DEC agrees that it is important to conduct a thorough review of the scientific literature when evaluating this sector. As stated in the RIS, DEC used the recent NYSERDA Oil and Gas Methane Inventory, which included a review of sources referenced by the commenters, including those related to downstream GHG emissions. In some cases, DEC and NYSERDA consulted with the authors of these papers for technical advice. DEC will continue to critically review the literature and seek technical advice from the scientific community. As

described in the RIS and above in Responses to Comments 26-30, DEC does not consider it appropriate at this time to apply results from recent top-down analyses to the 1990 baseline, even if such analyses may be appropriate for estimating emissions for current or future years.

Comment 33: DEC should work with the Public Service Commission, “LDCs”, and upstream pipeline companies to assess the methods and data used to estimate fugitive methane. (Commenter 27)

Response to Comment 33: DEC agrees and will continue to work with staff in other agencies and with industrial partners in gathering technical advice and data.

Comment 34: Commenters noted errors in Table 7 or text referring to Table 7. (Commenters 1, 3)

Response to Comment 34: A revised RIS has addressed the errors noted. None of the errors noted have a material effect on the substance of the RIS or on the emission limits established in the regulation.

Comment 35: The RIS described how the estimation of aviation GHG emissions is different from the previous NYSERDA inventory but does not explain the role of aviation fuel in the overall transportation sector. This is an example of unsubstantiated assertions in the RIS. (Commenter 3)

Response to Comment 35: The RIS provided information regarding the data sources and choice of methods used to estimate the 1990 baseline. Where necessary, the RIS explained deviations from the previous NYSERDA GHG inventory. In many cases, DEC applied the same data and methods

as was used by NYSERDA and that report can still be reviewed in order to, for example, assess the relative contribution of aviation GHG emissions. This is notable because the transportation sector may have changed in the past thirty years. The 1990 baseline is not an adequate reference for understanding the role of aviation in New York State's transportation sector today. The relative contribution of different sources of GHG emissions to current overall statewide GHG emissions, including the relative contribution of the transportation sector, will be further reported in the separate annual GHG emission report required under ECL § 75-0105.

Waste Sector Comments

Comment 36: DEC must account for exported waste. (Commenter 17)

Response to Comment 36: DEC agrees and these GHG emissions are included in the baseline as they were in previous NYSERDA GHG inventories for the State.

Comment 37: Commenters indicated support, including appreciation for the treatment of waste combustion in waste as opposed to energy, recognition of waste as a source of GHG emissions, and the recognition of waste GHG emissions but with a request that DEC acknowledge that waste management is a public service. (Commenters 6, 30)

Response to Comment 37: DEC thanks you for your comment.

Comment 38: The RIS created substantial uncertainty with regards to whether biogenic sources of carbon dioxide will be omitted in net reporting, specifically renewable natural gas from landfills,

organic waste diverted to anaerobic digesters, or comingled organic waste and dairy manure in an anaerobic digester and whether this will apply to any feedstock, regardless of geography, because waste flows across borders. (Commenter 18)

Comment 39: DEC should treat biogenic GHG emissions of carbon dioxide from the waste sector consistently and the proposed approach differs from EPA policies (citing the WARM model and Clean Power Plan) and the IPCC. Commenters stated that either all GHG emissions affect climate change and should be included, that none of these GHG emission sources affect climate change, or that all waste management ends up emitting the same carbon dioxide so they should all be treated the same. One commenter indicated that fire can be natural and so combustion should be treated as equivalent to decomposition. (Commenters 14, 17, 18, 30)

Comment 40: This regulation will have unintended consequences for energy policy, specifically the development of renewable natural gas (RNG) or “biogas”. Commenters predict scenarios in which methane will be flared or leaked, that landfills will no longer be incentivized to capture methane in order to reduce methane combustion, that there will be no incentive to divert plastics and reduce such sources of fossil fuel GHG emissions, that anaerobic digestion will appear less desirable than composting despite the benefits of recovered RNG, and that RNG will provide no benefits compared to natural gas. (Commenters 15, 18, 26, 30)

Response to Comments 38, 39, and 40: As described above in the responses to comments in the sections above regarding gross or net emissions and biogenic GHG emissions and in the RIS, DEC proposed applying gross accounting in order to meet the requirements of the CLCPA. Moreover, this rule is not intended to incentivize or disincentivize particular fuel sources, including RNG or “biogas.” As noted, Part 496 does not itself foreclose any particular policy option with respect to

the treatment of biogenic GHG emissions under the Climate Act, including with regard to renewable fuels.

In the case of GHG emissions from waste management, DEC determined that some sources are omitted in the IPCC guidance used by the UNFCCC in the reporting of net emissions, because they are intended to be balanced against removals on the land base. However, other sources are omitted because they represent natural, non-anthropogenic emissions. In the first instance, the proposed regulation considered gross rather than net emissions, so there is no need to omit these sources. Separate from this rulemaking, questions regarding net emissions accounting will be addressed in consultation with stakeholders and the public as part of the development of the annual report required pursuant to ECL § 75-0105, the first of which is due by the end of 2021 (ECL § 75-0105). For the second type of GHG emissions, i.e. non-anthropogenic GHG emissions, DEC maintains that these GHG emissions are not appropriate for GHG accounting under the CLCPA. Waste incineration, on the other hand, is in fact anthropogenic, despite the fact that fire can be natural. Commenters also introduce a third type of potential emissions, or avoided methane. Methane emissions are included in the proposed regulation and will be reported annually. It is likely that State policies to reduce methane will consider various ways that methane emissions can be avoided. Finally, DEC notes that, unlike biogenic fuels, under the CLCPA fossil fuels are associated with GHG emissions from both combustion and imported, upstream GHG emissions.

Many of the other comments presuppose the outcome of policies and planning that is outside of the scope of this regulation. This regulation is intended to establish statewide emission limits as required by the CLCPA by estimating a 1990 emission baseline. DEC did not consider the merits of different fuels or consider the ways in which future policies would be needed to promote specific fuels or even ensure emission controls. Many additional policies will be needed to achieve the

statewide emission limits, and these issues may be addressed by the Department, the Council, and the State as part of the consideration and implementation of various policies to meet the requirements of the CLCPA.

Comment 41: The commenter thinks methane emissions from landfills should be a smaller proportion of statewide emissions and requests that DEC "refine its emission calculations using new developments in GHG quantification technologies." (Commenter 28)

Response to Comment 41: The Department based the 1990 emission estimate on the best available information as described in the RIS. At this time, the Department is not aware of any specific information that would warrant a change in the methodology used to estimate 1990 methane emissions from landfills. DEC will continue to make improvements, as necessary and appropriate, to the 1990 baseline and in the data and methods used in the separate annual reporting required under ECL § 75-0105. The public is welcome to provide recommendations and specific, detailed suggestions are particularly helpful. For example, as in the case of methane emissions associated with oil and gas sources, "top-down" research has suggested that improvements may also be needed to identify methane sources at landfills. DEC will seek additional feedback in this area as part of its upcoming process to develop the first annual GHG emission report.

Comment 42: DEC should include a more accurate accounting of wastewater GHG emissions. The Commenter points to potential GHG emissions from septic systems that were omitted and offers to share data from municipal facilities. (Commenter 27)

Response to Comment 42: DEC thanks you for your comment and has added an estimate of septic system GHG emissions to the 1990 baseline, which was not included in the EPA State Inventory Tool. Additional explanatory text has been added to the revised RIS and additional details will be provided in the GHG annual report pursuant to ECL § 75-0105. DEC plans to continue to make improvements in the estimation of both septic and wastewater management sources.

Comment 43: The RIS “ignores the magnitude to the methane reductions that could be possible if the State’s goals were to incentivize the capture of methane from solid waste disposal...and wastewater.” (Commenter 3)

Response to Comment 43: As stated above and described in the RIS, the regulation includes the estimation of methane emissions in 1990 based on the best available information. While methane reductions will be required to achieve the statewide GHG emission limits, as explained in Response to Comment 7, DEC did not establish separate and distinct limits on individual gases. Therefore, the precise magnitude of methane reductions necessary to achieve the statewide GHG emission limits is not a subject of this rulemaking. Additional policies and programs may be needed to ensure these statewide GHG emission reductions are achieved, as required by the Climate Act, and these may include incentives for methane recovery.

Industry Sector Comments

Comment 44: DEC should not penalize industries by failing to capture transitions that have already occurred such as in Heating Ventilation and Air Conditioning (HVAC) and refrigeration. This relates to comments regarding the establishment of an accurate baseline. (Commenter 12)

Response to Comment 44: While this regulation does not penalize any particular industry as it solely establishes the GHG emissions baseline, DEC appreciates the transitions previously made by many industries, for example the transition away from ozone-depleting substances as required by federal regulations under the United States commitment to the Montreal Protocol. Looking forward, many additional policies will likely be needed at the State and national level to also transition away from HFCs to align with the Kigali Amendment to the Montreal Protocol.

Comment 45: The Industrial Process and Product Use (IPPU values in Table 8 of the RIS do not sum. (Commenter 1)

Response to Comment 45: DEC thanks you for your comment and has made non-substantive edits to the tables in the RIS to fix any errors.

Requests for Additional Reporting

Comment 46: Commenters noted that the annual report per ECL § 75-0105 will require additional detail and requested additional aspects of annual reporting that are not related to this rule, including tracking GHG emissions by location to ensure that reductions in disadvantaged communities are prioritized, the reporting of co-pollutants, and reporting sufficient information to identify what GHG reductions are necessary to achieve the GHG limits and to compare the baseline to current GHG emission levels. The latter is required to ensure that the statewide emission limits maintain the same level of ambition compared to methods used in the previous NYSERDA GHG inventory. (Commenter 3, 17)

Response to Comment 46: While outside the scope of this rulemaking, DEC appreciates the feedback regarding the type of information that could be provided in the GHG annual report pursuant to ECL § 75-0105. The Department agrees that the GHG annual report will require additional information not directly related to this rulemaking. DEC plans to provide the information that is required by the Climate Act and that is best able to inform policy and planning to achieve both the statewide emissions limits and net zero emission goal.

Comment 47: The CLCPA requires DEC to consider establishing a mandatory reporting system by January 2021, but DEC has not yet proposed such a program. The Commenter states that DEC only currently requires reporting for certain facilities and suggests that DEC look at examples in other states. (Commenter 17)

Response to Comment 47: While beyond the scope of this rulemaking, the commenter is correct. As stated in the CLCPA, “the department shall consider establishing a mandatory registry and reporting system from individual sources to obtain data on greenhouse gas emissions exceeding a particular threshold.” ECL § 75-0105(4). As required by the CLCPA, the Department has considered establishing such a mandatory registry and reporting system to obtain GHG emission information from individual sources exceeding a particular GHG emission threshold. At this time, the Department is not proposing such a system. The Department may, however, propose such a system in the future. The Department will continue to consider whether such a system is necessary for the overall successful implementation of the CLCPA.

Currently, DEC uses a variety of data collected under State and federal regulations, including the reporting by individual sources in the State that can be accessed via the EPA Greenhouse Gas

Reporting Program's Facility Level Information on GreenHouse gases Tool (FLIGHT; 40 CFR Part 98) or DEC's InfoLocator Map tool. Going forward, DEC and other State entities will consider adopting additional reporting programs to gather data and for individual GHG sources that exceed an emissions threshold. This may include consideration by the Department as part of the forthcoming stakeholder process to develop the annual statewide GHG emission report required by ECL § 75-0105, or by the Council as part of its development of recommendations in the Scoping Plan. The statewide emission limits also encompass a large amount of cumulative emissions from small sources, suggesting the potential need to gather additional data.

Comment 48: The Commenter states that the estimation of the 1990 baseline is based on "mean estimates of emissions in 1990" and does not include confidence intervals. DEC should report uncertainty such as in the EPA national inventory. The commenter cites specific estimates in the EPA national inventory associated with a relatively large amount of uncertainty (nitrous oxide from soil management). (Commenter 17)

Response to Comment 48: DEC agrees that it is helpful to assess uncertainty, and acknowledges that there is inherent uncertainty in any estimate of statewide emissions from three decades ago. However, reporting confidence intervals is not a requirement of ECL § 75-0107 and would be less informative when applied to historical GHG emissions, which will always be associated with several sources of irreducible uncertainty. Finally, while the reporting of confidence intervals may be appropriate for purposes of a GHG emissions inventory, this rulemaking serves somewhat different purposes as required by the CLCPA and as explained in the RIS. That is, it translates the 2030 and 2050 statewide emission limits established in the CLCPA into specific statewide tonnage volumes on a CO_{2e} basis (GWP20), based on an estimate of 1990 statewide GHG emissions.

Comment 49: The Commenter cites Section 7(3) of the CLCPA and states that DEC must prioritize GHG emission reductions in disadvantaged communities. As such this rule should cite Section 7 in the "benefits and needs" section of the RIS and promote early action by "reporting all relevant temporal and locational emissions data at the community level." This regulation should also include a reporting framework that will allow tracking of emissions and limits at the community level. (Commenter 21)

Response to Comment 49: The Department agrees regarding the importance of prioritizing reductions of GHG emissions in disadvantaged communities, as required by the CLCPA. This rulemaking, however, does not itself require any specific GHG emission reductions at individual GHG emission sources. Instead, as described in the RIS, this rulemaking establishes the estimated 1990 emission baseline against which statewide GHG emissions must be reduced under the Climate Act. As required by the CLCPA, future actions by the Department and the State to reduce GHG emissions will prioritize reductions of GHGs in disadvantaged communities.

Comment 50: In addition to the tables providing 100-year GWP total emissions, there should be a table that shows the in-state only values using the 100-year GWP so these can be compared with other jurisdictions. (Commenter 1)

Comment 51: Commenters cite the value of lifecycle emissions accounting and request an estimate of such GHG emissions as associated with construction materials and recycling. (Commenter 27)

Response to Comment 50 and 51: The RIS is intended to support the public review of the regulation, but it is not a regulation itself. The RIS is also not intended or required to provide

information regarding the design of other policies or programs. For the proposed regulation, the RIS is intended to explain how the statewide emission limit was derived, per the statutory requirements. ECL § 75-0107. DEC agrees that there are many other types of information that could be helpful in the design of policies and programs to address GHGs and co-pollutants, and to compare the CLCPA with other models. However, these policies and programs will be implemented separately as part of the State's overall implementation of the CLCPA, and the RIS provided for this regulation is not the appropriate source for this information.

Other Requests or Comments

Comment 52: Commenters stated that the CLCPA will be detrimental to the State economy and should be put on hold until a full fiscal analysis is completed or commented that such impacts were possible and that the current regulation should not be finalized until the regulations that are intended to meet these limits are released for public review. (Commenters 3, 23)

Response to Comment 52: The commenter's suggestion is inconsistent with the requirements of the CLCPA. The Department is required by law to promulgate this regulation before January 1, 2021. ECL § 75-0107. As described in the RIS, this regulation does not itself impose any compliance obligation on any entity. Finally, the Department is separately required by the Climate Act to promulgate regulations to ensure the achievement of the statewide GHG emission limits. ECL § 75-0109. In proposing such regulations, the Department will follow the requirements of the State Administrative Procedure Act, as well as the additional requirements of ECL § 75-0109. Among other things, these provisions provide for public notice and comment and require consideration of any potential costs or fiscal impacts.

Comment 53: Several commenters suggested that DEC undertake actions that are beyond the scope of this rule or cited implications of the rule/law or policy needs beyond the rule, such as to support specific technologies or fuels and related industries, or suggested actions to be considered in the Scoping Plan. (Commenters 7, 8, 13, 15, 16, 18, 20, 22, 24, 25, 28)

Comment 54: Commenters requested amendments to the CLCPA including prohibitions on biodiesel and biofuels or an expectation that the proposed rule will form the basis of a GHG tax, carbon price, or cap-and-trade program that was not described in the CLCPA. (Commenters 24, 25)

Comment 55: The proposed rule will drive businesses out of the state and thereby cause emission leakage. (Commenter 8)

Response to Comments 53, 54, and 55: These comments are beyond the scope of this rulemaking. The regulation is limited to the establishment of a 1990 baseline and certain GHG emission limits, as required by the CLCPA. Separate from this rule, particular programs, policies, or other actions to support specific technologies may be considered by the Department, the State, or the Council as part of the ongoing implementation of the CLCPA. This rule does not itself impose any prohibitions or impose any type of GHG tax or carbon tax. Similarly, it does not establish or require a GHG emissions accounting method or approach that may be used by other State policies or attempt to anticipate what these policies will ultimately be. It also does not estimate or anticipate leakage, although the CLCPA does include provisions addressing leakage. DEC notes that many jurisdictions maintain annual inventories of GHG emissions that are supplemented by policies and programs that do not directly relate to that inventory.

Comment 56: The proposed rule places an undue burden on organizations such as local governments who will now be required to track emissions using gross accounting. DEC should help local governments align statewide accounting with the types of protocols that they typically use for government and community emissions accounting.

Response to Comment 56: DEC disagrees that the approach to GHG emissions accounting in this rule must be adopted by municipal entities. This rule does not impose any compliance obligations on local governments or other entities and does not specify a particular accounting methodology that must be followed by municipalities. These entities already used protocols for GHG emissions accounting that vary from those used by national and state-level governments. However, DEC and other State agencies and authorities will likely continue to provide technical support to local governments through existing or new programs.

Comment 57: The public should have a way to report non-compliance. (Commenter 2)

Response to Comment 57: As described in the RIS and in this Assessment of Public Comments, this rule does not impose any compliance obligations on any entity. Therefore, there will not be direct violations or non-compliance under Part 496. While DEC is unsure what specific type of compliance is of interest to the comment, the Department notes that violations of the ECL or of the Department's implementing regulations can be reported following the "Report an Environmental Violation" instructions on <https://www.dec.ny.gov/regulations/67751.html>.

List of Commenters

#	Name, Organization
1	Roger Ciazza
2	David Stout
3	Sandra Meier, Environmental Energy Alliance of New York
4	Robert Howarth, Cornell University
5	John Rath, NY Geothermal Energy Organization
6	Linda Bunde, Islip Resource Recovery Agency
7	Eric Weltman, Food and Water Action
8	John Bartow, Empire State Forest Products Association
9	Michael Helme, NYers for Cool Refrigerant Management
10	Tara Vamos, NYers for Cool Refrigerant Management
11	Bill Novak, NY Geothermal Energy Organization
12	Kevin Schwab, CenterState Center for Economic Development
13	Charles Niebling, Lignetics Inc
14	Alli Lemieux, Wheelabrator Technologies
15	Brian Paganini, Quantum Biopower
16	Phil Vos, Energy Vision
17	Rebecca Spector, Earth Justice and undersigned
18	Same Wade, Coalition for Renewable Natural Gas
19	Barry Malmberg, National Council for Air and Stream Improvement, Inc
20	Richard Murphy, NY Assembly - Englebright and Quart
21	Raya Salter, NY Renews
22	Christina Starr, Environmental Investigation Agency and undersigned
23	Will Barclay, NY Assembly
24	Ray Albrecht , National Biodiesel Board
25	Robert Malmshemer, SUNY Environmental Science and Forestry
26	Randy Rucinski, National Fuel Gas Distribution Corporation
27	Russell King, City of New York / Couch White
28	Samuel Nicolai, Cassella Waste Systems Inc
29	Erin Murphy, Environmental Defense Fund
30	Michael vanBrunt, Covanta
31	Abigail Turner Sztein, American Forest & Paper Association and American Wood Council

