



PROPOSED 6 NYCRR PART 496 REGULATIONS: STATEWIDE GHG EMISSION LIMITS

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Introduction

- The proposed Part 496: **Statewide Greenhouse Gas Emission Limits** are regulations proposed in accordance with (and in support of) NYS's Climate Leadership and Community Protection Act (CLCPA).
 - The CLCPA directs the NYS Department of Environmental Conservation (DEC) to develop regulations establishing statewide greenhouse gas (GHG) emission limits. [ECL 75-0107]
- The proposed Part 496 regulation:
 1. Describes **how NYS will calculate statewide GHG emission limits**, and
 2. **“Translates** the statewide percentage emission reduction **requirements into ... tonnage limits** based on carbon dioxide equivalents (CO₂e).
- **Notes for the presentation: (1) Bracketed items are references to CLCPA sections. (1) All quotes are from the Proposed Rule's Regulatory Impact Statement.**

Introduction

- The Rulemaking (aka regulation making) Process:
 1. Regulation proposed – Done.
 - See <https://www.dec.ny.gov/regulations/121052.html>
 2. Public comments - Occurring Now.
 - Virtual public hearing at 2:00 and 6:00 p.m. on October 20, 2020.
 - **Comment period closes at 5:00 on October 27, 2020.**
 3. Final regulation is expected to be issued and effective by January 1, 2021.

CLCPA GHG Emission Reduction Requirements

- CLCPA specifies (among other things) three requirements:
 - **Emission Reduction Requirements:** [ECL 75-0107(1)(a) & (b)]
 1. **“40 by 2030” = 40% reduction** (relative to 1990 GHG emissions) in GHG emissions by 2030.
 - By 2030, statewide NYS GHG emissions must be 60% of 1990 GHG emissions.
 2. **“85 by 2050” = 85% reduction** (relative to 1990 GHG emissions) in GHG emissions by 2050.
 - By 2050, statewide NYS GHG emissions must be 15% of 1990 GHG emissions.
 - **Net Emission Requirement:** [ECL 75-0103(11)]
 3. **“Net Zero by 2050” = Zero net statewide GHG emissions by 2050**
 - By 2050, All NYS GHG emissions (specified above at no greater than 15% of 1990 GHG emissions) must be offset by carbon sequestered in the state (by land- and forest-based sequestration, HWPs, CCS, etc.)
- This rule only addresses the **Emission Reduction Requirements (#1 and #2 above)**.

What about the “Net Zero by 2050” Requirement?

- The proposed rule contains some important information about the “Net Zero by 2050” requirement.
 1. The state must meet the “85% by 2050” requirement **in addition to** the “Net Zero by 2050” requirement. [ECL 75-0103(11)]
 2. The **emission reduction requirements** (i.e., “40 by 2030” and “85 by 2050”) drive (or **determine**) the **“Net Zero by 2050” requirements**. [ECL 75-0109(4)(a) & (b)]
 3. Therefore, the **maximum “offset” allowed under the “Net Zero by 2050” requirement can equal no more than 15% of the state’s 1990 emissions.**
- In the proposed rule, DEC states that it will have a “separate process ... to establish a net accounting framework [for the Net Zero by 2050 Net Emission Requirement] that benefits long-term, sustainable land management ... and informs future[DEC] regulatory and policy action.”

Differences: Proposed Rule and the IPCC's Protocols

- DEC uses IPCC protocols in this proposed rule, “provided such protocols do not conflict with ... **[CLCPA] requirements.**”
- The IPCC protocols **conflict** with the CLCPA's requirements in four key areas.
 1. DEC must report CO₂, CH₄, N₂O, PFC, HFC, and SF₆ by sector. [ECL 75-0101(7)]
 - IPCC reports these emissions differently.
 2. DEC must report CO₂e using a 20-year Global Warming Potential (GWP) [ECL 75-0101(2)]
 - IPCC reports of CO₂e using a 100 GWP.
 3. DEC must report (a) in-state emissions, and (b) out-of-state emissions for imported (i) electricity and (ii) fossil fuels. [ECL 0101(13)]
 - IPCC does not report of out-of-jurisdiction emissions for (i) electricity and (ii) fossil fuels.

Differences between the Proposed Rule and the IPCC's Protocols

4. DEC's Statewide GHG Emission Limits must include **all** “anthropogenic emissions^[*] [ECL 75-0101(13)], but not removals of these emissions, such as through carbon sequestration and storage in plants.”

*In the proposed rule, “anthropogenic is defined following the IPCC protocol as emissions resulting from human activity and [the] ‘statewide ... [GHG] emission limit’ is defined as the percentage of gross anthropogenic emissions from 1990. As such, *the anthropogenic CO₂ emissions resulting from the combustion of biomass and biofuels are included in the 1990 baseline that defines the proposed rule.*”
[emphasis added]

- **IPCC does not report CO₂ from the combustion of biomass-based products in national emission totals because it considers it to be carbon neutral.**
 - CO₂ “emissions from the combustion of biomass or biomass-based products ... [as] captured within the CO₂ emissions in the [Agriculture Forestry and Other Land Use] sector through the estimated changes in carbon stocks from biomass harvest, even in cases where the emissions physically take place in other sectors (e.g., energy). [Therefore, the IPCC] “considers it best practice for CO₂ emissions from the ... [combustion of biomass] to be reported in the Energy sector, but not included in national [CO₂ emission] totals.”

What Does the Proposed Rule Actually Do?

1. Establishes the **method to calculate 1990 GHG emissions**.
2. Establishes **statewide 1990 GHG emissions: 401.38 MMT**. ¹
3. Establishes **2030 GHG emission limits: 240.8 MMT** (60% of 1990 emissions). ^{1, 2}
4. Establishes **2050 GHG emission limits: 60.2 MMT** (15% of 1990 emissions). ^{1, 2}
5. Establishes the **maximum “offset”** (via land- and forest-based sequestration, HWP, CCS, etc.) **allowed under the “Net Zero by 2050” requirement: 60.2 MMT** (15% of 1990 emissions). ^{1, 3}

¹ But since DEC “strives for the highest possible accuracy and intends to reduce uncertainty and improve accuracy through **continued improvements**,” **this figure may change**.

² However, “Under the CLCPA[,] the statewide emission limits for 2030 and 2050 are **not limited to the scope of sources** and emissions that existed in 1990 that are the focus of this document. Therefore, this proposed rule **does not establish how these emissions will be calculated**.

³ However, the DEC “will **continue to incorporate appropriate new information** regarding all relevant sources, which may include additional or different methods for the accounting of net [GHG] emissions, sequestration, and removals.” Therefore, this proposed rule **does not establish how these emissions will be calculated**.

What Does the Proposed Rule Actually Do?

- As noted previously, the CLCPA requires DEC to report (1) in-state emissions, **and** (2) out-of-state emissions for imported (a) electricity and (b) fossil fuels. [ECL 0101(13)]
 - Therefore DEC’s 1990 GHG emissions include both in-state and out-of-state emissions associated with the (1) production of fossil fuels and (2) consumption of fossil fuels.
- However, the CLCPA does **not** require DEC to do the same thing for bioenergy produced in another state and imported into NYS (e.g., wood pellets produced by a PA mill and imported into NYS).
- Therefore DEC’s 1990 GHG emissions include:
 - The in-state production **and** in-state consumption emissions for NYS bioenergy producers, and
 - **Only** the in-state consumption emissions for bioenergy products imported into NYS.

Example: Emissions Reported for Biofuels Produced in NYS vs. Imported into NYS

In-state Producer	In-state Production Emissions	Reported
	In-state Consumption Emissions	Reported
Out-of-state Producer	Out-of-state Production Emissions	Not Reported
	In-state Consumption Emissions	Reported

Potential Implications of Proposed Rule: Required Sequestration

- ***If*** the statewide emission reduction methodology and limits are the basis for the maximum “offset” allowed under the “Net Zero by 2050” requirement, the state will need (1) to sequester approximately **60 MMT of CO₂e starting in 2050, and (2) then every year thereafter sequester** an amount that offsets yearly GHG emissions.
- According to Domke et al. 2020 (<https://www.nrs.fs.fed.us/pubs/59852>), NYS currently sequesters approximately **27.3 MMT per year in its land base** – HWP sequestration is currently being determined.
 - Therefore the **state would have to increase the carbon sequestered by its lands, forests, HWPs, CCS, etc. by approximately 30 MMT per year by 2050** (if we assume HWP sequester approximately 3 MMT).
- Since forest-based sequestration is the **net** of carbon sequestered minus carbon emitted, NYS would need to manage its forests to insure it:
 1. **Maintains** existing **carbon stocks**,
 2. **Increases sequestration** in its forests (via **younger, established, rigorously growing forests** (which sequester (but often do not store) more carbon than old forests) **and**
 3. **Increases** its output of **HWPs**.

Potential Implications of Proposed Rule: Carbon Tax and Cap-and-Trade Systems

- ***If*** the statewide emission reduction methodology and limits are the basis for a (1) GHG tax system or (2) GHG cap-and-trade system:
 1. The state's bioenergy producers will be **disadvantaged** because **both** their **in-state production GHG emissions and their in-state consumption GHG emissions** would be subject to such systems.
 - Whereas, only out-of-state bioenergy producers' in-state consumption GHG emissions would be subject to such systems.
 2. The **GHG emissions of forest product sector firms that use waste-based biomass (as part of their production process)** would be subject to such systems.
 - In other words, these firms' CO₂ emissions would **not** be considered carbon-neutral – as they currently are under the IPCC's protocols.

But note these are **potential implications**.

1. **NYS has not stated** that such GHG systems will be based on statewide emission limits, and
2. **NYS has stated** it will have a “separate process ... to establish a net accounting framework [for the Net Zero by 2050 Net Emission Requirement] that benefits long-term, sustainable land management.”

Final Thoughts

These proposed regulations are important because as DEC stated, **the statewide emission limits** established by this proposed rule **will:**

- **“be the foundation for multiple components of the CLCPA and are critically important for the successful implementation of the CLCPA.”**
- **“serve as the baseline for the promulgation of future regulations by the Department under the CLCPA, which the CLCPA requires to ensure compliance with the statewide emission reduction limits.” [ECL 75-0109]**



QUESTIONS?
