

New York State Climate Action Council

November 21, 2022
Meeting 29



Agenda

- > Welcome and Roll Call
- > Consideration of October 25, 2022, Minutes
- > Co-Chair Remarks and Reflections
- > Discussion of Potential Edits to Draft Scoping Plan Chapters
 - Gas System Transition
 - Buildings
 - Electricity
 - Economywide
 - Industry
 - Climate Justice
 - Health
- > Next Steps

Consideration of October 25, 2022, Minutes

Co-Chair Remarks and Reflections

Recent Announcements

Recent Activity from New York State

- 11/17/22 [Governor Hochul Announces Approval of Major Offshore Wind Transmission Line](#)
- 11/16/22 [Governor Hochul Announces Ten Grand Prize Winners in the \\$85 Million New York Clean Transportation Prizes Program](#)
- 11/09/22 [Governor Hochul Announces More than \\$3.7 Million to Bring Climate Tech Manufacturing and Products to New York State Through M-Corps Program](#)
- 11/08/22 Voters pass the Clean Water, Clean Air and Green Jobs Environmental Bond Act of 2022

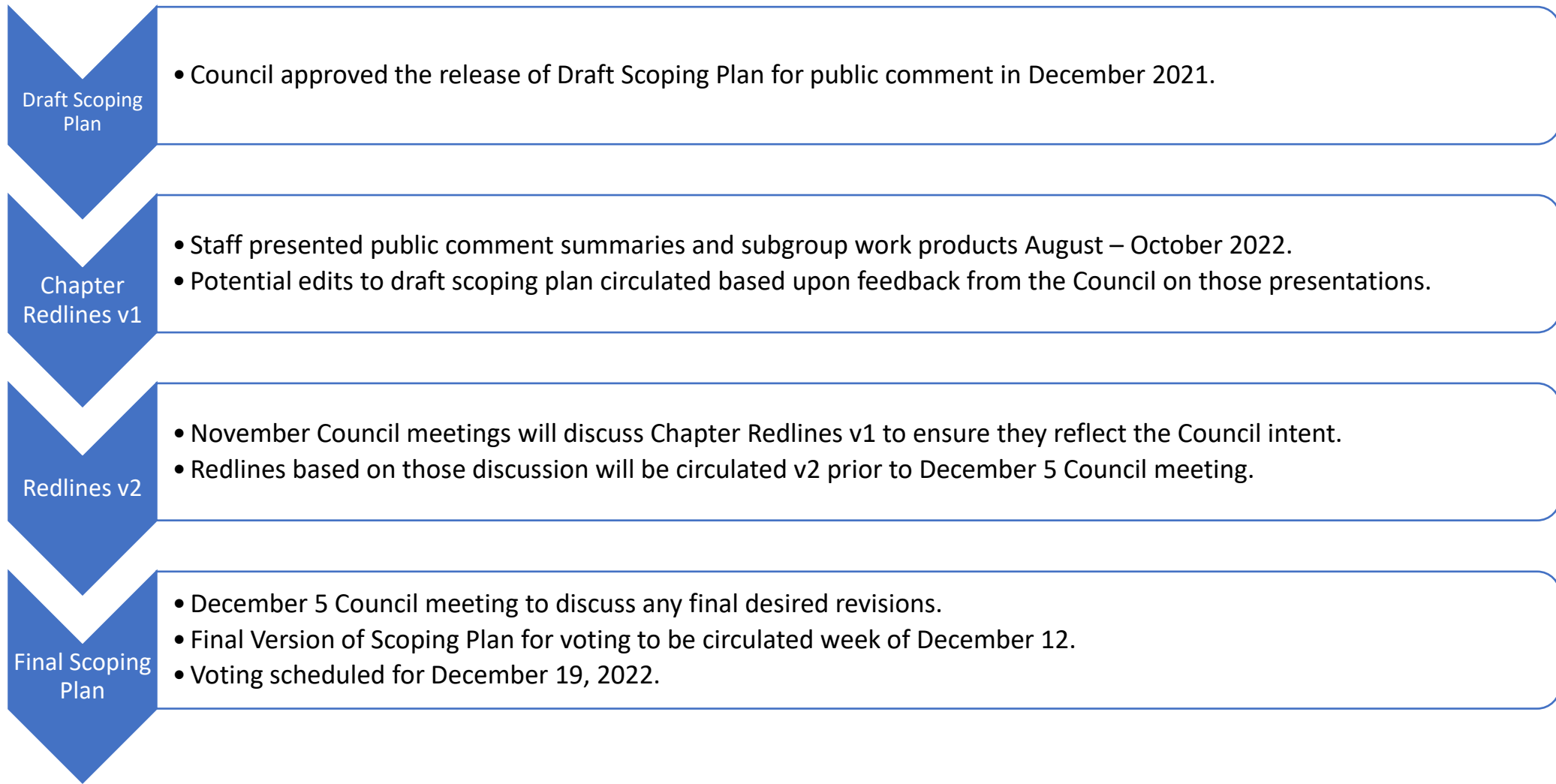


Discussion of Potential Edits to Draft Scoping Plan Chapters

Delivering the CLCPA



Process of Revising Draft Scoping Plan



Gas System Transition

Gas System Transition: Summary of Feedback

Discussion Items

- > Leak prone pipes: Recommendation to add language to identify strategic opportunities to retire existing pipelines as demand declines
- > General: Recommendation to change the term “fossil gas” to “natural gas” throughout the chapter
- > Framework: Recommendation to remove the first bullet under “consider the role of alternative fuels and technologies in future gas system planning,” which states “consider strategic use of alternative fuels, aligned with the Integration Analysis scenarios, to meet customer needs for space heating or process use where electrification is not yet feasible or to decarbonize the gas system as it transitions.”
- > Alternative fuels: Recommendation to revise newly added paragraph on potential use of RNG and green hydrogen to reflect Council member’s feedback on the potential resource size of RNG and ability for the gas system to accommodate blending of green hydrogen.

Gas System Transition: Summary of Feedback

Follow-Up Items

- > Consider using the following term throughout the chapter "fossil natural gas" to keep in the statutory term of "natural gas" but address Council member's concerns about the need to draw distinction between "natural gas" and "renewable natural gas."
- > Recommendation to add language to sentence on protection of industry workforce for the opportunity for the decarbonization and operation of the gas system as it transitions, including potential use of alternative fuels.
- > Recommendation to add consideration of financial incentives for the retention of the gas system workforce while the gas system transitions when describing protections for the existing workforce and equitable transition plan.
- > Ensure language on review of existing statutory provisions is consistent throughout this chapter and in alignment with how this is characterized in other chapters.
- > Framework: Recommendation to connect the specific actions described in Chapter 12 B1 and B2 to the detailed actions here that assure reliability, energy delivery resilience and an affordable transition for consumers.
- > Framework: Recommendation to delete the second bullet in the "Consider use of existing gas infrastructure"

Gas System Transition: Summary of Feedback

Editorial Feedback

- > Ensure language is clear on the issuance of permits for gas infrastructure projects that an analysis of whether these projects are needed to maintain safety and/or reliability is completed prior to denial.
- > When using the term “downsize,” change to “strategically downsize and decarbonize” for consistency.
- > Update text regarding quantity of leak prone pipe to reflect the progress the State has made in reducing it.
- > Stakeholders should also include unions. Also, when listing specific agencies to be involved in the development of the Gas System Transition Plan, be sure to include DOL and the Office of Just Transition.
- > Need to check consistency of language used with the alternative fuels subgroup work.
- > Recommendation to delete text related to methane emissions from the gas sector that suggests emissions have been relatively flat since 2005.
- > When referring to methane emissions, use the term “significant” versus “substantial.”
- > In the language related to emissions analysis for consideration of alternative fuels, ensure we are being consistent with requiring an evaluation of the full lifecycle GHG emissions throughout.
- > Recommendation to remove language regarding the potential for customers to use other fossil fuels such as oil or propane where it outlines potential results if gas system transition is not carefully planned.

Buildings

Buildings

Discussion Items

- > Strategy B2, recommendation to add "distribution system readiness" and to align with the gas system transition framework in this text: "In addition to the considerations required by the Climate Act and SAPA, for a full public engagement and comment process that considers consumer costs and benefits as well as technical, industry, and grid-readiness, building-level resilience and potential for future connection to a clean TEN will also be considered in the development of these emission standards."
- > Strategy B6: Recommendation to clarify the meaning of "clean" Thermal Energy Networks (TENs).
- > Editorial note: Findings from the integration analysis are described on page 2, paragraph 2 (which begins, "The integration analysis indicates..."), in corresponding footnote 2, and on page 4 (re: the "high ground source/district loop heat pump system sensitivity"). Staff will review this text to ensure that the inputs and findings are accurately described and use terminology that is consistent with the final integration analysis.
- > Regional distinctions: designation of the coldest regions in New York State (data follows).

NYS Regional Differences in Climate

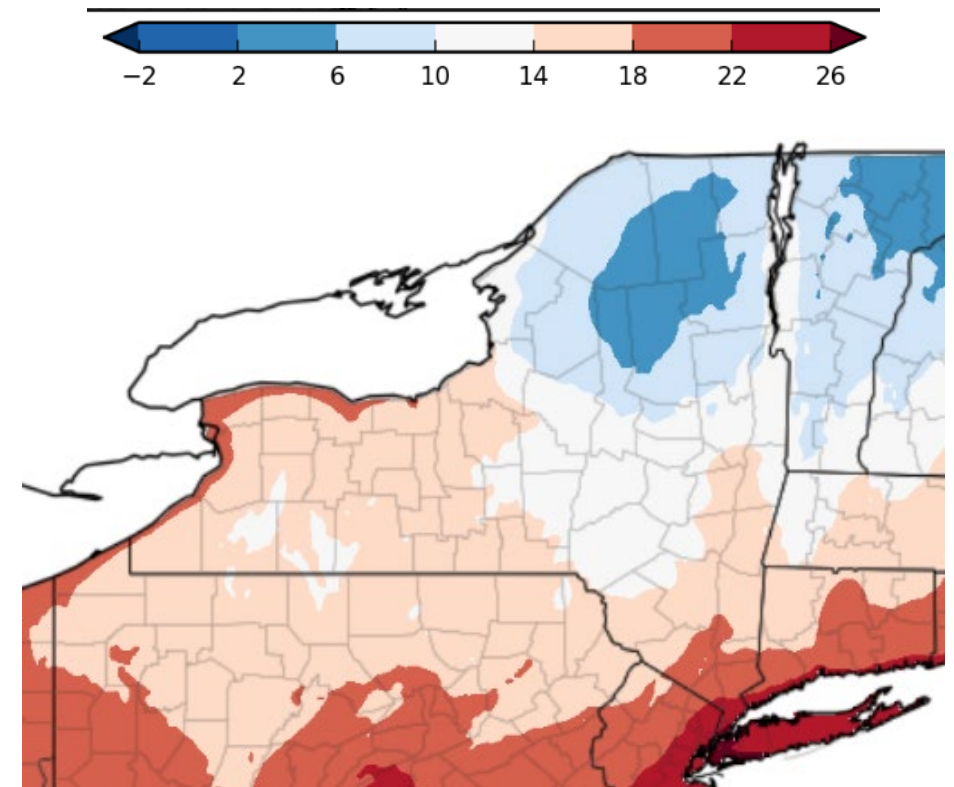
Heat Pump Performance

- > Several variables impact air-source heat pump (ASHP) performance: equipment quality, proper design and installation, envelope efficiency, and the temperature difference between indoors and outdoors.
- > Cold climate ASHPs work well in New York's climate, but in very cold outdoor conditions (below 5 °F) their heating capacity (output) and efficiency (coefficient of performance) drop.
- > Ground-source heat pumps perform well in extreme temperatures since heat is exchanged between the building and stable ground temperatures via an underground piping system.

NYS Winter Temperature Patterns

- > Temperature extremes are critical in considering how well ASHPs will serve each region in NYS.
- > Coastal (ocean or lake) and southern regions of NYS tend to have winters with minimum temperatures above 5 °F, while in colder mountainous and northern regions temperatures fall below 5 °F.

Normal January Minimum Temperature
Degrees Fahrenheit (1991 – 2020)



NYS Regional Differences in Climate (cont.)

Metrics

- > Heating Degree Days (HDDs) show the difference between indoor and outdoor temperatures over a year, so even mild winter weather contributes to more HDDs.
- > Heating Design Temperature is the minimum (or %) annual temperature expected in a region, based on a 30-year average; it is used to design and size building heating systems.

Cold Regions

- > These two metrics can confirm or diverge from our expectations about cold climates—a location with many HDDs does not always have low design temperature.
- > Lower heating design temperatures indicate more winter cold snaps that will require high heating capacities.

County	Weather Station	Heating Degree Days	99% Heating Design Temp
Jefferson	WATERTOWN INTL AP, NY	7,524	-6 °F
Clinton	PLATTSBURGH INTL AP, NY	7,546	-5 °F
Fulton	GLOVERSVILLE, NY	*	-2 °F
Albany	ALBANY AP, NY	6,357	1 °F
Chautauqua	JAMESTOWN 4 ENE, NY	6,848	3 °F
Onondaga	SYRACUSE/HANCOCK, NY	6,588	3 °F
Dutchess	POUGHKEEPSIE DUTCHESS AP, NY	6,373	6 °F
Erie	BUFFALO NIAGARA INTL AP, NY	6,466	7 °F
Niagara	LOCKPORT, NY	6,792	7 °F
Queens	NEW YORK JFK INTL AP, NY US	4,872	13 °F

Buildings: Summary of Feedback

Follow-Up Items

- > "Emissions Overview" for the Chapter (noting that certain emissions are accounted for in other sectors).
- > Characterization of heat pump performance and lifecycle cost (review study released in Oct. 2022).
- > Regarding zero-emission codes and standards that would prohibit building systems or equipment used for the combustion of fossil fuels, feedback received on: (1) the dates for new construction codes in Strategy B1 and (2) the inclusion of zero-emission codes and standards in the Chapter.
- > Recommendations to adjust terminology and add text to expand attention to the development and use of alternative fuels/RNG as an option to decarbonize the buildings sector.

Editorial Feedback

- > Expand upfront discussion of anticipated job creation (responsibility for market research, types of jobs and tie to workforce development, how DACs will be prioritized) and elements to attract clean tech manufacturing.
- > Clarify that "public funding" for equitable building decarbonization includes State, utility ratepayer, and federal funding and tax credits.
- > Refine descriptions of integration analysis scenarios to ensure that inputs, findings, and terms are consistent.
- > Check for consistency and align certain language with the Gas Transition chapter.

Electricity

Electricity: Summary of Feedback

Discussion Items

- > E5: Expand language regarding how microgrids can be further explored as opportunities for decarbonization.
- > E6: Regarding "Incorporate energy storage into energy delivery and transmission planning": recommendation to add language to model and plan for better demand-side management of electricity, including local thermal storage for heat pumps, EVs as storage units, etc.
- > E9: Cost study bullet should include mention of the hybrid heating approach as a pathway to be explored. Additionally, expand current language that focuses on downstate to recognize the need to address peak winter loads upstate when severely cold, and that demand response, geothermal, and thermal storage are some of the technologies that can address this need.
- > E10: Recommendation to give higher priority to alternative fuels (green hydrogen and RNG) under "prioritization" given the need for dispatchable resources. Additionally, recommendation to remove RNG given the small resource size and delete "green hydrogen" as it is one of many forms of "long duration storage"

Electricity: Summary of Feedback

Follow-Up Items

- > E1: Expand language in the discussion of peaking units to clarify what they are used for in addressing system peaks and how we can mitigate system peaks through demand response.
- > E1: Add clarification to the “regular and transparent resource planning” section that outlines how the evaluation of options to retire and/or repurpose existing fossil fuel electric generation facilities fits into the biannual review required under the Climate Act and other state energy planning processes.
- > E2: Include more language about the need to protect the existing renewable fleet.
- > E2, E5: In the instances where the chapter mention microgrids and an “zero-emission” qualifier.
- > E5: Expand language in CCA eligibility regarding expansion to County governments to clarify towns, cities, and villages are currently already eligible.
- > E7: Recommendation to add language about mitigating the electric system buildout by relying on a decarbonized natural gas system.
- > E10: Update language to reflect a greater focus on the need for zero-emission, dispatchable generation resources and include the most recent projections of capacity need for these resources by 2040.

Electricity: Summary of Feedback

Editorial Feedback

- > Vision for 2050, E9: Recommend removing language that specifies specific regions of the state for energy delivery needs or cost studies and instead include more general language about the need for transmission and distribution system investments due to the lack of co-location of supply and demand and for cost studies in general for all regions of the state.
- > Key Stakeholders: Include host communities (CBO's, school districts, local governments) as key stakeholders.
- > E1: Add resiliency and quality of power to the sentence where it references reducing "energy price volatility."
- > E1: For Retirement of Fossil Fuel Fired Facilities, clarify language around peaker generation units and their "need", include the importance of resiliency and quality of power, include the 7.3 Requirements for DACs and need to ensure no disproportionate impacts, and provide a reference for the suggested Blueprint.
- > E3: When discussing the need to right-size human resources at utilities to improve the interconnection process, we should also include other entities (e.g., state agencies) that are involved in the process.
- > E7: Investing in Transmission and Distribution Infrastructure should also include ensuring appropriate hosting capacity for other DER technologies and using Smart Growth principles for economic development.
- > E10: Include a timetable on the decisions related to extension of the ZEC program because nuclear facilities require 12-18 months of lead time to determine refueling options.
- > E10: Ensure consistency of language with Alternative Fuels subgroup outcomes.
- > E10: When speaking of advanced nuclear, be clear what we are comparing it to.
- > General: When referencing section 7.2 and 7.3, use terminology from those sections of law.

Economywide

Economywide: Summary of Feedback

Discussion Item

> Climate Justice Working Group Input

- Concern that allowance trading creates hotspots or does not mitigate existing hotspots; consider disallowing any trading in addition to the restrictions on trading proposed in the Chapter.
- Require higher price for sources in DACs
- Include mechanism to price emissions of other pollutants
- Will offsets be permitted?
- Greater impacts on rural households that use more energy should be considered in design of rebate mechanisms; also ensure ease of access to rebates.
- Will revenues raised from sources in DACs stay in the community, in the form of investments or otherwise?
- Consider revenue-raising ideas other than cap-and-invest or carbon tax
- How will emissions of co-pollutants be tracked?

Economywide: Summary of Feedback

Follow-Up Items

> Topic

- I thought the state policy is going beyond the text of law on the 40% issue to have the spending in DACs not just that the spending would benefit DACs. Subtle, but very important that this aligns with policy.
- Cap and invest should include co-pollutants for sources in DACs, if not all sources.
- Mechanisms to mitigate the impact of higher costs that will face residents and business from a cap-and-invest program must be clear and effective. While it's important to focus these efforts on LMI households, other households and businesses must be addressed as well.
- Cost impact concerns and the potential to encourage leakage.

Economywide : Summary of Feedback

Editorial Feedback

- > Just before the break to section 17.2, add in that the cap will be a declining and enforceable one.
- > The language about rebates or support for LMI should include language that assures recipients that this will not impact their income and put them out of reach of other key public benefit programs (health insurance, WIC...).
- > The text identifies where there were CJWG concerns and how those are addressed with the policy, but it may also be helpful to reference other areas of the plan where there are connections. Like for electricity and retirement of fossil fuel fired facilities being subject to reliability and safety, it might be good to say that there are also other ways to reduce emissions from these facilities.
- > There is some confusion over the DAC investment requirement. Ensure consistency of use of 35/40% goal.
- > Regarding the structure of program to ensure compliance, include treatment of agriculture in the listing of source categories.
- > Regional concerns involving a cap-and-invest program must be thoroughly evaluated and addressed, e.g. residents and businesses in the Western New York region who are more reliant on fossil fuels should not face greater burdens under this program than other regions, particularly where GHG emissions are lower in this region. Clarify the proposal to address regional disparities via "investment of proceeds".
- > Clarify how RGGI would be incorporated under a cap and invest program.
- > Provide explanation as to why a clean energy supply standard is better considered on a sector-specific basis.
- > It appears that the State of Washington has done more than "passed legislation". It has adopted a regulation pursuant to its climate law.
- > Bullet on regional equity. Suggests a slight tweak to better identify what we mean: "In areas of the state where carbon intensive sources are centralized..."

Industry

Industry: Summary of Feedback

Follow-Up Items

- > The "Vision for 2030" should also include the use of RNG to help decarbonize the industrial sector, particularly in the near term and as the potential of other technologies such as hydrogen are explored and implemented.
- > Vision for 2050 mentions the need for high temperature heat in industrial manufacturing processes that could be met via the use of green hydrogen and other alternative fuels. There's no justification as to why electricity cannot meet these needs.
- > Regarding the safety of green hydrogen in I4. Research, Development, and Demonstration, research should also include GHG consequences and opportunity cost of not using renewable electricity in other ways.
- > When referencing impacts to Disadvantaged Communities, be clear Climate Act requires "prioritization" of emissions reductions in these communities and not just mitigation of impacts.

Editorial Feedback

- > Define Energy Intensive and Trade Exposed industries.
- > Clarify language in I1. Financial and Technical Assistance regarding how CJWG feedback is addressed
- > New paragraph mentions "... harmful effects that might be associated with such new technologies and approaches..." - "might be" should be changed to "have been shown to be" since we have seen these results from demonstrations.

Climate Justice

Climate Justice: Summary of Feedback

Follow-Up Items

- > Regarding delivering meaningful and equitable benefits to Disadvantaged Communities, economic focus should be critical in terms of ensuring electric infrastructure and capacity are present to decarbonize and to promote Smart Growth, Small Business Development and job opportunity as these communities will see extreme solution activity; that activity should build local opportunity versus simply "spending money" which is not a sustainable activity.
- > Concern that the examples provided imply that funding will flow more to nonprofit agencies that manage programs rather than those activities/programs/incentives that emphasize job and business development that make those needed products and services more affordable.

Editorial Feedback

- > Make it clear that text that actions cannot lead to disproportionate impacts is referencing Section 7.3 of the CLCPA and that all agencies are responsible for complying
- > Add a reference to include that by a vote of the people in November 2021, each person in New York has a right to clean air and water and a healthful environment (State Constitution Article 1, Section 19).
- > When describing incentives, use just "incentives" or "financial incentives" instead of "cash".
- > Restore deleted sentence regarding the necessity for coordinated guidance for application of Section 7.3 for state agencies.

Health

Health: Summary of Feedback

Editorial Feedback

- > Explain the differences between renewable diesel and biodiesel
- > When speaking of health effects associated with exposure to wood smoke, distinguish between in-home wood stoves and outdoor combustion systems.
- > With respect to indoor cooking, make it clear that negative air quality impacts may result from cooking at high temperatures regardless of the energy source, and that these impacts can be significantly minimized by proper ventilation.
- > Provide a description of the newly created Office of Health Equity and Human Rights.
- > Clarify the statement that "residents are increasingly turning to biomass for their heating needs" is not referring to "biomass and biofuels" mentioned in the previous sentence.
- > For completeness, health impacts associated with battery and solar panel disposal should also be included.

Next Steps

Next Steps

Council Meetings and Topics

Date and Time	Location	Topic
Monday, December 5, 1 – 5 pm	Empire State Plaza Meeting Rooms 2-4	Final resolution of outstanding items
Monday, December 19, 1 – 5 pm	Empire State Plaza Meeting Room 6	Vote on Final Scoping Plan, member statements