Hudson River Sloop Clearwater, Inc.
Comments and Recommendations
on the Climate Action Council's Draft Scoping Plan

To: Climate Action Council, State of New York
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Summary: Several of the important recommendations contained in Clearwater's full comments are summarized here

- Low-to-Moderate Income (LMI) and Black, Indigenous, and People of Color (BIPOC) communities must be prioritized in the outreach and implementation of renewable energy alternatives and their incentives, particularly on the banks of the Hudson River. Climate Justice [DSP 6]
- As stated in the Climate Act, ensure that at least 35 - 40% of the benefits of clean energy investments are directed to priority disadvantaged communities, as envisioned. [DSP 3.2]
- SEQRA must be expanded to specify how each action actively meets the goals of the Climate Act. [DSP 21]
- Foster adaptive reuse of closed nuclear and fossil fuel sites such as Danskammer and Indian Point for renewable energy generation and/or storage [DSP 7.5, 13.1]
- Reduce transportation emissions by providing funding for electric vehicles, including buses and trucks, and charging stations to accelerate the transition to fossil fuel-free transit. [DSP 11.1]
- Building energy retrofits: superinsulation with careful air-sealing employing healthy building practices are a major source of energy savings and should be incentivized. [DSP 12]
- Utilities' lowering rebates on air-source heat pumps slows their implementation; geothermal rebates were maintained. Heat pump rebates should be restored. [DSP 12]
- Stop subsidizing polluters: The Scoping Plan should end the longstanding practice of giving taxpayer subsidies to the fossil fuel and nuclear industry. Public money should not be going to industries that pollute our air and water and are primarily responsible for the climate crisis. The current DSP goal to eliminate "embedded subsidies for fossil fuels" by 2050 must be implemented even sooner. [DSP 12]
- Consumer Benefit Charge (CBC) net-metering surcharge significantly hinders solar development in NY and should be repealed. [DSP 13]
- Ensure renewable energy (RE) infrastructure with storage and energy efficiency retrofits precedes beneficial electrification to avoid burning more fossil fuel are not burned to meet the increased demand.[DSP 13, E2]
- Require equitable sharing of the costs of much needed grid upgrades between developer and utility and NY State, including applying any federal funding available to do so. [DSP 13,.E9]
- Nuclear is not clean energy or zero emission, and should not be included in the incentives provided. Funds channeled to nuclear power operators are funds which are not available for renewable energy infrastructure, storage, energy efficiency retrofits or other climate solutions, where they are needed. [DSP 13, E10]
- Invest instead in our collective future by providing adequate state funding to invest in infrastructure for renewables, storage, grid upgrades and beneficial electrification. The Scoping Plan also should include a $15 billion infusion of state funds to implement the Climate Action Plan. [DSP 17.2]
- Ensure responsible materials management and prioritize data collection for fugitive emissions in waste and treatment facilities. More research is required to effectively mitigate emissions from this sector. However, waste management can be tackled now through production restrictions and sustainable materials and recycling practices.[DSP 16.2]
- Utilities should be prohibited from building new gas lines, which carry fracked "natural" gas. (DSP 18: Gas System Transition)

INTRODUCTION: Creating a consensus document that reflects the various interests and values of a wide range of stakeholders to develop a plan to address the global climate crisis, as directed by the Climate Act, is a tremendous undertaking. The main deficiency we find in this ambitious document is its **lack of specificity**. The document is still more aspirational than implementable. The Climate Action Council (CAC) should incorporate best suggestions garnered from public comment to ensure the final document is an implementable plan – one that will **meet the goals and the timeline set forth**, that **quantifies the amount of money needed** for each of the recommended programs, and which **indicates where that funding will come from** for each Draft Scoping recommendation. There can be little hope of succeeding without adequate financing of the proposed changes, including financing of adequate government staff and the resources needed. The final document should also identify the administrative problems associated with different state agencies charged with implementing the plan. The final document should also include what required authorization would be needed to implement the plan.

The scoping process has resulted in considerable opposition to the changes that are urgently needed. Clearwater strongly supports the Climate Act and urges the CAC to adopt a targeted strategy to address this through a public education campaign and to stay the course.

BACKGROUND: Hudson River Sloop Clearwater has actively participated in the Mid-Hudson Regional Sustainability Coalition (MHRSC) since it was formed in 2010, working on the Water and Energy Working Groups (EWG) and helping to draft **The Mid-Hudson Regional Sustainability Plan**[1] — published in 2013 and funded by a $1 million grant allocated to each Economic Development Region in NY State. The Energy Working Group was in the process of developing a Regional Renewable Energy Implementation Plan (RREIP) when NY's Climate Act was passed. To ensure that the Mid-Hudson Renewable Energy Plan was consistent with the CLCPA, that project was postponed. Clearwater is now focused on tracking the work of the Draft Scoping Plan to offer substantial advisory commentary, which has been reviewed for input by the entire 7-County Mid-Hudson Coalition. As coordinators of that set of comments, Clearwater agrees with all that is contained therein and will not repeat those points here, except in a few instances for emphasis. Rather, we are making key points about water and offering other comments that are specific to **Clearwater's mission "to preserve and protect the Hudson River, its tributaries and related bodies of water"**, with emphasis on water, energy and environmental and climate justice. The MHRSC EWG comments are included as an attachment and have been submitted separately as well.

Clearwater's early organizing was very influential in the passage of the Clean Water Act in 1972 and we have worked to ensure its implementation ever since. Clearwater also helped to found the Hudson River Watershed Alliance[2], which networks watershed groups in most of the region's tributaries and has incubated watershed protection groups by developing watershed protection plans in the Fallkill, Rondout, and Coeymans Creeks as well as for the City of Peekskill. Clearwater has been working to ensure the clean up of Hudson River PCBs for more than 40 years.

It is with these decades of experience in regional environmental advocacy and sustainable development that we state unequivocally that **climate change is the greatest threat to the Hudson River and its communities.**

Chapter 2. The Time is Now to Decarbonize Our Economy

Scientific Evidence of Our Changing Climate (DSP 2.1)

Amidst the global crisis of climate change, Clearwater asserts that it is crucial to the health of New York, and the United States, to champion evidence-based sustainability and environmental justice in all decision-making.

Scientists from around the world have concluded that we are living in a time of irreversible climate changes and that the best path forward for survival is to become a climate resilient and carbon sequestering society.

The draft scoping plan effectively summarizes the scientific evidence behind the climate crisis, using Intergovernmental Panel on Climate Change (IPCC) reports and projections as well as National Climate

Assessments. The severity of the issue is partially addressed through this overview; however, the mention of global temperature averages falls short of motivating immediate and bold climate action. Although the DSP mentions in passing that 1.5°C is the ideal goal for mid-century temperature increase, this is considerably lower than the 2°C requirement set by the IPCC and the U.S. Global Change Research Program. However, many scientists believe that, with the melting of the polar ice caps and the potential to release massive amounts of methane from the exposed permafrost ("methane burp"), even 1.5°C is an insufficient target to restore climate balance. This is made especially apparent through new research on the Southern Ocean and the effects of warm and carbon-rich deep ocean water being brought to the surface and impacting sea levels[3]. Ocean currents are gaining strength fueled by winds from rising temperatures. This escalates the melting of ice sheets and release of carbon in a vicious cycle which can and is leading to the collapse of the ice shelves.

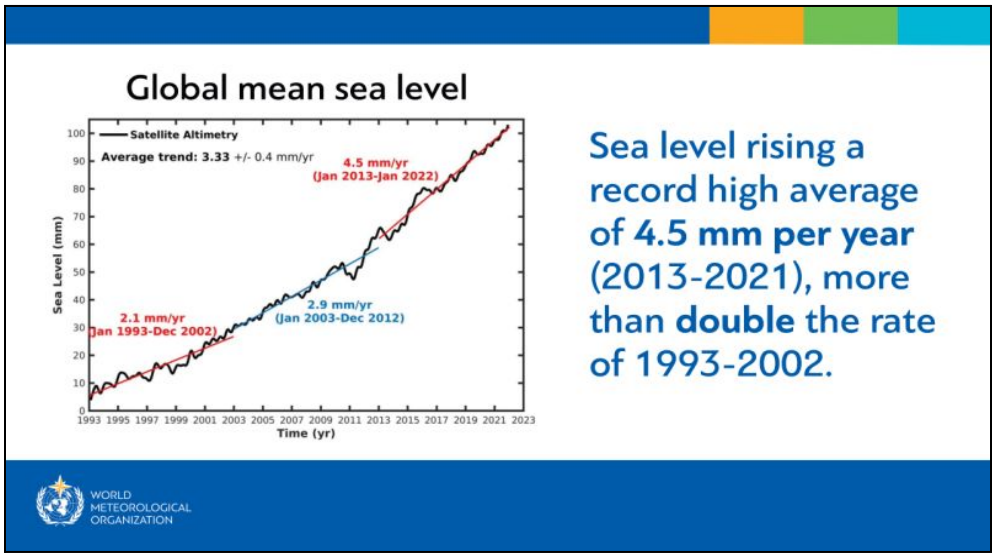
This scientific evidence identifies the urgency for immediate action to reduce and eliminate Greenhouse Gas (GHG) emissions in the interest of all life on Earth, and their facilitating ecosystems.

Recent Articles on the Global Climate Emergency:

On December 13, 2021, just before the Climate Action Council (CAC) released the Draft Scoping Plan, the New York Times published this devastating news: "**Rising From the Antarctic, a Climate Alarm:** Wilder winds are altering currents. The sea is releasing carbon dioxide"[4]. Appendix 2 cites other recent articles which stress that the climate crisis is increasingly a global emergency.

Climate Projections (DSP 2.2): "Over the longer term, there is high confidence that the sea level will continue to rise for centuries to millennia due to ongoing deep ocean warming and ice sheet melt and will remain elevated for thousands of years."

The IPCC reported last year on its findings of GHG emissions and their effects on the planet[5]. The IPCC detailed five scenarios of global climate projections based on how aggressively nations act to reduce GHG emissions, and has outlined the projections of climate impacts. Both in New York and globally, these projected impacts will fall most heavily on disadvantaged communities in the form of heat waves, pollution, flooding, and other harms. This will require prioritization and attention to the needs of these communities. Additionally, global projections concur that the 1.5° C to 2° C warming limit will be exceeded this century without drastic GHG emissions reductions. Thus, the severity of the projections predicted for the next century emphasize the need to direct efforts to both mitigation solutions and to simultaneously prepare for the inevitable impacts of climate change already on the way.



Source: **World Meteorological Organization:** The State of the Global Climate 2021

New York faces significant climate change effects as a coastal state, being subject to sea level rises as well as extreme temperatures and precipitation. With specific regard to projected water impacts, the anticipated - and already demonstrated - effects of climate change on water bodies and related infrastructure are severe, important and widespread. A key effect of the warming, which we call changing climate, is, in effect, a reallocation of some of the fixed amount of water on our planet from land (glaciers, snow mass, soil moisture) and atmosphere (water vapor) to oceans, where it causes sea level rise. As this occurs and increases over time, we will see effects such as drought, further warming due to reduced ability by glaciers and clouds to reflect sunlight, more frequent and more severe storms, and increased ocean acidification. Some of these effects are already all too visible and are having effects on ecosystems such as coral reefs. The rate at which sea-level rise is occurring may seem small, but is of course cumulative and has been increasing, as can be seen in the following graph. This highlights the exceptional rate at which climate change is taking effect globally.

Benefits of Climate Action (DSP 2.3): While climate change is detrimental to livelihoods, health, environments, economies, animals, and wellbeing, climate action can provide numerous benefits in various sectors. The draft plan lists multiple benefits of GHG emission mitigation, from health improvements to economic stimulus and social inclusion. Regarding adaptation and resilience planning, it is predicted that these steps will improve quality of life and local economies, and improve infrastructure and equity in communities. However, the scope of benefits for these climate action steps should incorporate the benefits to ecosystems for a more holistic approach, ensuring that the human/nature divide is not worsened by climate action. It is important to note that the restructuring of values and community relationships with their environment can be a significant benefit of climate action.

Chapter 6. Achieving Climate Justice

Environmental and Climate Justice (DSP 6): Clearwater commends the drafters of the Climate Leadership and Community Protection Act for emphasizing the need for equity and establishing a goal that not less than 35% – with the target of 40% – this legislation's benefit accrue to Disadvantaged Communities (DACs).

Note: The use of the term "disadvantaged communities" may have a negative connotation on underserved and underrepresented communities that have suffered the most at the hands of environmental polluters. The path for New York's greener future involves great cultural shifts, which should be reflected in the State's and its residents' language, attitudes, and behaviors. For this reason, these communities will be identified by us as "Environmental Justice Communities", "Priority Communities" or "EJ Priority Communities" in these comments.

In making the following recommendations, Clearwater would like to cite its more than ten years experience working on Environmental Justice[6] issues in many priority communities. Clearwater's Green Cities staff helped develop the innovative Community-Based Environmental Justice Inventory for the City of Peekskill[7] in 2010 and Climate Justice Assessments[8] for Kingston, Poughkeepsie, Beacon, and Peekskill. We currently serve on the Restoration Advisory Board[9] for the remediation of Newburgh's water supply, which was contaminated with PFAS from Stewart Air National Guard.

Areas of concern in the DSP and recommendations:

- The DSP states that "Women, femmes, youth and children are more vulnerable to climate impacts." They should add "elders" to this list of at-risk demographics.
- A large number of Environmental Justice Communities are located in the Hudson Valley, particularly those located on or around the banks of the Hudson River. This should factor into the specific strategies adopted for the region. See: Disadvantaged Communities Map[10]
- Inclusive and transparent meetings on the planning, implementation, communications, and education of energy alternatives are needed, especially in Black, Indigenous, People of Color (BIPOC) and Low-to- Moderate Income (LMI) communities.

- Provide and advertise incentives for sustainable energy or climate resilience programs widely, especially to BIPOC/LMI communities, which are historically under-informed of beneficial opportunities available to them.

Chapter 7. Just Transition

Just Transition (DSP 7): Just transition can be defined[11] as a framework developed by the labor movement to encompass a range of social interventions needed to secure workers' rights and livelihoods when economies are shifting to sustainable production, primarily combating climate change and protecting biodiversity. In Europe, advocates for a just transition want to unite social and climate justice, for example, for coal workers in coal-dependent developing regions who lack employment opportunities other than in coal production. This includes ensuring project labor agreements (PLAs) and prevailing wages, workforce development, training and placement.

In Holyoke, Massachusetts, Coal to Sol[12] is an example of the **adaptive reuse of closed fossil fuel and nuclear plants**. As former fossil fuel and nuclear plants are phased out the space on which they were located is ideally suited to be used for renewables and/or energy storage. Illinois has a Coal-to-Solar Energy Storage Grant Program[13], which can be a good model for New York.

Here in the Hudson Valley, Indian Point is being decommissioned. Given its history of radioactive leaks into groundwater and soil contamination that will be only minimally remediated, this facility is located on **240 acres and has the necessary grid infrastructure in place** to install as much as 40 MW of solar with battery storage. This would ensure reliability to the facility and much of the surrounding community in Buchanan, especially if it is designed as a microgrid, able to island off the larger grid, in the case of a power outage.

Likewise, although it is still being challenged in court, the NYS DEC's position that the proposed Danskammer expanded fossil fuel plant is not consistent with the Climate Act means that its construction is unlikely to be permitted. That leaves an aging existing peaker plant, which is not likely to be relicensed. When Danskammer and neighboring Roseton are closed, the much needed grid infrastructure will still be in place, making these sites ideal for energy storage. See: Experts Develop Clean Energy Alternative Concept to Gas-Fired Danskammer Plant - Scenic Hudson[14] and Danskammer – Isn't it Worth Getting Right?[15].

Chapter 8. Public Health

Public Health (DSP 8): Advances in adaptation and resilience, such as technologies that can mitigate impacts resulting from wave action, improved flood and thermal resilience in buildings, and improved understanding of nature-based solutions to address the urban heat island effect, **stormwater runoff and drought**, and the benefits of trees can all help to improve our ability to cope with the effects of climate change and provide co-benefits for the public health issues that are bound to arise.

Other significant impacts associated with public health that are not listed above include droughts, rising sea levels that threaten infrastructure, saltwater intrusion into groundwater resources (which **may impact drinking water supplies)**, poor indoor air quality (such as mold and moisture), and deteriorating outdoor air quality (particularly ground-level ozone that increases with rising temperature), and increased risk for food- and **water-borne diseases** resulting from increasing temperatures and flooding. Climate change will add uncertainty to the continuity of the food system, which may have impacts on food security, particularly in low-income communities. This is already present in California, where water supplies are severely restricted by drought. The climate crisis will also undoubtedly affect the mental health of many, something the draft scoping plan barely addresses.

Sector-Specific Health Co-Benefits of Climate Policies (DSP 8.3, p.65): A prime example of a public policy co-benefits is the benefits provided by trees. Not only are trees capable of reducing greenhouse gas emissions from buildings, but trees located near buildings and throughout neighborhoods provide significant benefits for reducing energy use in buildings in warm and cold weather. This is accomplished

via the shading of buildings, the transpiration of moisture that cools the air, and the buffering of winds that increase air infiltration into buildings, which is also beneficial in cold weather. These benefits are most significant in areas with low-rise buildings and in older buildings with less insulation and more air infiltration. The benefits and the mechanisms involved have been researched and evaluated in many published studies for decades, and there is substantial information available in educational materials about some of the details relevant for applying this information in real-world settings. In fact, one 2013 study stated that the loss of urban tree cover resulted in a 37% increase in electrical consumption when the 2008 and 2009 cooling seasons were compared (Morzuch 2013). With some exceptions, however, this information is not currently being used to guide relevant programs and policies in New York State and there is relatively little investment into tree planning, management and planting programs given the major potential economic and environmental benefits that could be achieved. Trees also provide a wide range of other benefits relevant for climate change mitigation and adaptation and for public health and safety, including improving air quality by capturing pollutants, reducing stormwater runoff and protecting water quality, buffering noise, enhancing mental and social health, and sequestering carbon. To maximize these benefits, **the State should develop a cross-agency assessment to evaluate all the programs, policies and agencies where these ideas can be employed in the context of housing, health care and public health, community development, air pollution mitigation, smart growth, mental and emotional health, K-12 education, hazard mitigation, and others.**

Beneficial Electrification (DSP 11-13): Because Buildings and Transportation account for such a large portion of NYS Greenhouse Gas emissions, they are prominently featured in the Draft Scoping Plan and the MHRSC Energy Working Group Comments. An important note of caution: If the implementation of beneficial electrification precedes the implementation of new renewable energy infrastructure, this may create an increased demand for electricity that can't be met by existing renewable energy production. This could lead to more fossil fuels being burned to meet that demand and delayed closure of aging fossil fuel facilities. Figure 2 from the DSP illustrates the GHG emissions by sector. As electrification of the economy increases, renewable energy production and storage capacity needs to keep pace with demand.

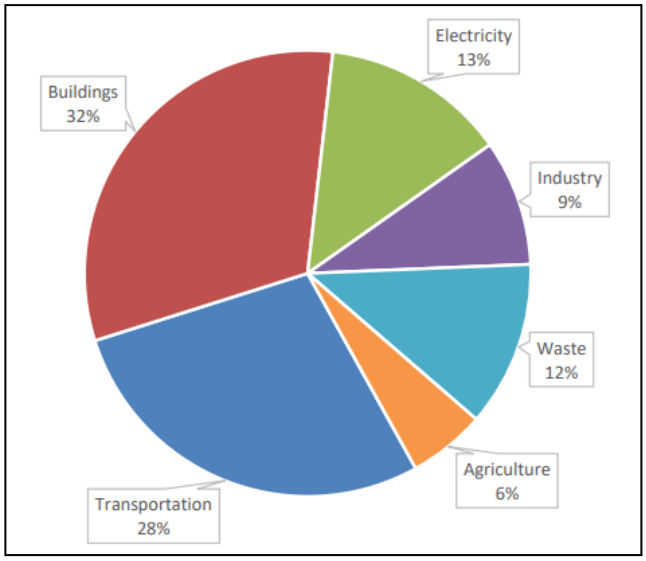


Figure 2. 2019 New York State GHG Emissions by Scoping Plan Sector (DSP, p. 24)

NYS GHG emissions originate from:

- Buildings - 32%
- Transportation - 28%
- Electricity - 13%
- Waste - 12%
- Industry - 9%
- Agriculture - 6%

Chapter 11: Transportation:

A plan to **decrease the dependence on personal motor vehicle transportation** is necessary. By making municipalities more walkable and bikeable, public transit more accessible, and remote work an option, it will encourage people to commute to work in ways that protect the environment, instead of continuing the reliance on fossil fuel-dependent modes of transport. Key recommendations include:

- Expand incentives for e-bikes, prioritizing ones that are sturdier and have greater capacity for commuting use.
- The DSP's lack of attention to infrastructure needs should be rectified. In July 2020, the NY Public Service Commission issued an Order, 18-E-0138, supporting CLCPA goals as well as New York State's zero-emission vehicle (ZEV) goal of deploying 850,000 electric vehicles across the state by 2025[16]. The final scoping plan should include plans for where the charging stations will be and how they will be put into place.
- Internal Combustion to EV retrofits: When owners of new EVs turn in their gasoline burning vehicles, they will be resold and will continue to burn fossil fuel by the next owner. Service centers should be incentivized to convert internal combustion vehicles to electric vehicles and retrofit kits should be made available for do-it-yourselfers.
- Solar Powered Rail: Examples from Germany and California show this is possible, either through off-site solar panels or panels installed on stations and other rail infrastructure.
- Solar Powered Maritime Transport: Marine transport is barely mentioned in the DSP, however there is potential for various forms of solar powered maritime transportation. Travel via water is significantly more energy efficient than other forms of travel, and renewable-powered vessels are already in production. A solar-powered ferry and a wind-powered freight ship are already in use on the Hudson River.

Clearwater also supports Scoping Plan recommendations to:

- Expand low/zero-carbon transportation alternatives for "first and last mile" by increasing and supporting public transportation, and require the NYS Department of Transportation to update its guidance and regulations to support low/zero carbon transportation.
- Develop tax credits for businesses to support low-carbon commuting solutions for employees (e.g., bike-sharing, discounted employee transit passes, and telecommuting).

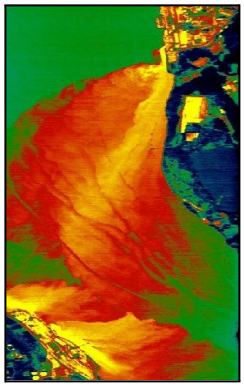
Chapter 12: Buildings: An increased pool of funding for rebates for air-source heat pumps is necessary to incentivize New Yorkers to heat and cool their homes without the use of fossil fuels, but utilities have drastically cut rebates – e.g. as of March 1, 2022 Central Hudson reduced their rebates for air-source heat pumps/mini-splits by half; ground-source heat pumps/geothermal have not been reduced yet, but the State must find a way for utilities to set aside enough funding for rebates for both building retrofits and electrification and for EVs and charging stations. Even more important is to promote building retrofits, repairs, and weatherization to ensure energy efficiency, which will save money in the long-term, and increase the value of property. This must be done with care to ensure air quality by maintaining good ventilation so that toxicants are not trapped inside a well-sealed building envelope.

The Scoping Plan should include statewide adoption of New York City's Local Law 134: Electric Buildings Law[17], which requires all new building construction, starting in 2024, to include electric cooking, hot water, and space heating and cooling. The Scoping Plan should prioritize replacing fossil fuel-based heating systems with electric heat pumps in at least 2 million homes by 2030. The 2019 Local Law 97[18] is another important piece of legislation which aims to reduce emissions in buildings exceeding 25,000 square feet (with specific exceptions). While Clearwater commends the DSP for including this law as a framework for state-wide commercial and multifamily buildings, the current goal to reduce emissions by 40 percent by 2030 and 80 percent by 2050 requires an accelerated timeline. Clearwater suggests that funds and resources currently provided to the fossil fuel industry be redirected to energy efficiency and beneficial electrification more urgently than the proposed benchmarks to reflect the severity of the climate crisis.

Chapter 13. Electricity

Energy: Although Clearwater's mission is to protect and restore the ecology of the Hudson River and its tributaries, it is also committed to protecting the well-being of everyone living in its watershed. To that end Clearwater strongly supported the passage of the Green Amendment to the NY State Constitution,

which was passed last year and became law in January of this year. On Jan. 12, 2022 Clearwater sponsored a presentation on **The Green Amendment: How It Will Change NY's Environmental Future**[19]. By adding the Green Amendment to the State's Bill of Rights, the right to clean air, clean water, and a healthful environment are guaranteed to New Yorkers. In order to ensure that commitment to well-being is upheld, it will be necessary to reduce greenhouse gas emissions and switch to a renewable energy economy with storage and efficiency. Chapter 13 of the New York State Draft Scoping Plan focuses on Electricity, Chapter 11 on Transportation, and Chapter 12 on Buildings, which are covered briefly in these comments.



Water and energy are closely related, as is land use. Fossil fuel and nuclear energy generation often require cooling water and the Hudson River has provided this function – but often at the expense of a wide variety of fish and other aquatic species through impingement on intake screens for adult fish, entrainment in cooling systems, which literally cook smaller fish and larvae, and by thermal pollution of discharge water. (See thermogram to the right showing thermal pollution at Indian Point when it was operating. It is located at the upper right.) Think of coming out of a movie theater or other air-conditioned space into 100ºF – except for fish, a change of only 15º degrees from warm to hot water can be fatal.

Clearwater's specific recommendations with regard to energy include supporting most – but not all – of the recommendation in the Sectoral Strategies in Chapters 11 – 13. The current division of the State's electricity generation and legislatively stated goals are as follows:

- New York's electricity sector is made up of traditional fossil-fuel fired power generation facilities, nuclear generation facilities, clean energy generation (wind, solar, hydro, energy storage), and transmission infrastructure.
- In 2020, **renewable resources** accounted for **27%** of the state's electricity generation, mostly due to large hydro (such as Niagara Falls) and wind.
- **Nuclear** makes up **29%** of state electricity generation
- **Fossil fuel** produced the remaining **43+%** of statewide electricity
- **Climate Act requires:**
    - **70% statewide electricity come from renewable sources by 2030**
    - **2025 → 6,000 MW of distributed solar**
    - **2030 → 3,000 MW of energy storage installed** (this is updated below)
    - **2035 → 9,000 MW offshore wind**
    - **"Zero-emissions" electricity system by 2040** (which includes nuclear)
- NY State anticipates electricity demand growth of 65% to 80% by 2050; the NYISO estimates almost a doubling of demand.

Transforming Power Generation:

Retirement of Fossil Fuel Fired Facilities (DSP 13.2, E1, p.154): The Scoping Plan should include recommendations for legislation banning new fossil fuel plants and related infrastructure. Clearwater strongly supports the NYS DEC position that the proposed Danskammer Expansion is NOT consistent with CLCPA. The DSP should also establish emissions reduction target timetables for retiring existing facilities, in order to meet the Climate Law's 2030, 2040 and 2050 goals.

Clearwater notes that there is very little consideration of hydroelectric (large-scale or low-impact) or tidal power noted in the Draft Scoping Plan. Clearwater recommends clarifying the difference between Low Impact Hydroelectric and larger systems that require extensive flooding and release methane, which has such a high GHG index.

Low Impact Hydroelectric and Tidal Power: Although offshore and land-based wind and solar will provide the greatest percentage of renewable energy to meet the State's climate goals, there remains a need for additional power generation that is not tied to variation in wind or sunshine, as are windmills and solar panels. Hydroelectric can reliably produce electricity rain or shine as long as there is water in the reservoir. However, impounding water for hydroelectric can produce greenhouse gasses, especially upon initial flooding. Using existing impoundments releases less methane than flooding new lands, which then cause vegetation to decay and release significant amounts of this highly potent greenhouse gas.

While hydropower currently plays a significant role in New York's non-fossil fuel-based generation, there is limited room for increasing this contribution without concomitant impacts to climate change and aquatic ecology. The climate impact stems from the greenhouse gas emitted from impoundments; primarily methane. Exploration of new hydropower opportunities is nevertheless encouraged, but only when such opportunities will not significantly impact the environment. Such approaches are termed "Low Impact Hydro". One set of Low Impact Hydropower criteria has been developed by the Low Impact Hydropower Institute. While somewhat skeptical of LIH's potential benefit-over-impact ratio, Clearwater supports further research and development.

There are three types of hydropower facilities: impoundment, diversion, and pumped storage. Most hydropower plants use dams and some do not. Low-impact is defined by the Low Impact Hydropower Institute[20] (LIHI) as "small projects that would result in minor environmental effects (e.g., projects that involve little change to water flow and use and are unlikely to affect threatened and endangered species)." LIH does not include flooding of large areas of undisturbed ecosystems, which results in loss of biodiversity, and methane release from decaying vegetation. In some cases, this can also remove opportunities for hunting and fishing from First Nation people. NYS DEC and others want to see the Hudson and its tributaries restored to their natural state by removing as many dams or other impoundments as possible.

Developers claim potential for capturing the power of falling water by installing state of the art systems that minimize fish kill and promote fish passage. Clearwater suggests investigating such claims carefully before supporting their implementation.

There is no consensus as to which dams should be removed, which should be restored, and which repowered. However, existing drinking water reservoirs should be utilized for the power they could generate. The impoundments already exist and will not be going anywhere. One example is the existing Croton Reservoir system, which has potential for capturing significant amounts of hydropower without requiring new flooding. However, any such refitting should include effective fish passage for river herring and American eel. Another example might be the Kensico Dam in Westchester. Notably, it had a hydropower generating facility which has been out of use for many years and could be rebuilt.

Hydropower is part of the climate solution, but can also be part of the climate problem without careful choices being made regarding where and how to implement for minimized ecological and climate impacts. LIHI's certification program is designed to recognize project operators who are minimizing river impacts through science-based criteria developed by LIHI's governing board of environmental scientists, conservation organizations, and subject matter experts. Low Impact Certified hydropower can be cautiously integrated into regulatory programs and renewable energy systems to balance power generation, ecosystem protection and climate outcomes.

Closed loop pumped storage has the potential to compensate for the weather dependency of wind and solar. However, it too will generate methane if new impoundments are created. Fully enclosed systems, such as tank farm storage at two elevations, could alleviate this problem if economically feasible.

Tidal power shows potential for zero-emission energy generation, though it would be challenging to implement in a way that eliminates, or at least minimizes, impact on the Hudson and other aquatic ecosystems. The tides come in and out reliably twice a day and there are many technologies that should be evaluated for development. It must be remembered though that estuary ecosystems are of fundamental importance to ocean health and should not be sacrificed for tidal power generation. Open water tide and wave harvesting systems should also be explored, which may minimize impacts.

Explore Technology Solutions (DSP 13, E10):

Nuclear is NOT a Climate Solution: The DSP mistakenly considers nuclear as "zero emission" ignoring the greenhouse gas emissions and radioactive releases that result from mining, processing, transportation, storage, and decommissioning. Further, NYS Clean Energy Standards include nuclear power in Tier 3 credits, also known as Zero Emission Credits, which support upstate nuclear power plants. This is also demonstrated by **Figure 13: Energy Production by Fuel Source - Statewide, Upstate, & Downstate New York: 2020** of the NYISO Power Trends 2021, which perpetuates this most unfortunate misconception by including nuclear with hydro as "Zero Emission".

This dismisses the very real danger, cost, and long-term impact to host communities. At Indian Point, which closed in April 2021, there are almost 2,000 tons of highly radioactive waste stored on site, with no safe disposal in sight. Transportation is also highly dangerous and raises issues of environmental justice for the many Environmental Justice communities through which high-level nuclear waste passes, and for the communities which host potential so-called "Consolidated Interim Storage" sites. With no national repository on the horizon, these are likely to be used indefinitely in communities in Texas and New Mexico that have been burdened with radiation since scientists detonated the first atomic bomb at the Trinity Site, on July 16, 1945, ushering in the atomic age.

NY's $7.6 Billion Nuclear Subsidy: In July 2016, Hudson River Sloop Clearwater submitted comments urging the NY State Public Service Commission to reconsider a mandatory 12-yr nuclear subsidy[21], which NY ratepayers have been funding since it was implemented in 2015. See also: NYS PSC's Clean Energy Standard Includes a Huge Nuclear Subsidy[22] In May 2021, Clearwater organized a webinar entitled **Indian Point; What's Next? An Environmental Justice Conversation**[23], which provided an update on decommissioning with a discussion of potential impacts on surrounding EJ communities and other EJ issues. Indian Point uniquely has three high pressure gas power lines running under or adjacent to the facility, which pose additional potential hazard during decommissioning. Clearwater was also very instrumental in the creation of NY State's Decommissioning Oversight Board and we continue to facilitate weekly calls of the National Decommissioning Working Group.

Accelerate Growth of Large-Scale Renewable Energy Generation (DSP 13.2, p.158): To this end Clearwater is working with Scenic Hudson and New Yorkers for Clean Power to train municipalities to use the Scenic Hudson Solar Mapping Tool to ensure wise solar siting, and to take leadership in implementing renewable energy infrastructure with storage and efficiency by installing solar on municipally owned property, including landfills and brownfields, and by encouraging their businesses, landowners and residents to do so as well. Solar mapping empowers communities and thus deserves funding to further propel the cultural shift to community-centered energy decision-making. Distributed energy resources (DER) take place on the ground within each municipality, so municipalities must become engaged and supported if the goals of CLCPA are to be attained. Zoning should be revised to ensure wise development of solar and other renewables. There must be much more support for community- and utility-scale solar, with appropriate incentives and policies to ensure success.

Facilitate Distributed Generation/Distributed Energy Resources (DSP 13.2, p.160): Access and affordability are key as the State invests in transmission and distribution infrastructure upgrades. With regard to interconnection and hosting capacity, Clearwater believes utilities should not be allowed to inflate interconnection costs, as has been the practice, because this prevents valuable renewable energy infrastructure projects from being undertaken. We also believe that the costs should be shared by the utilities (which are typically guaranteed a 9 to 10% return on investment) and developers, with State and Federal subsidies. One possible scenario is that the State facilitate interconnection by providing at least a third of cost to ensure adequate hosting capacity.. Utilities should be required to work with municipalities to prioritize where distributed generation is most appropriate and protective of valued resources. This should include prioritizing marginal lands, rooftops and parking lots, and other previously developed lands and unused open space, while protecting prime farmland for food security, wetlands and other important ecosystems in addition to promoting agrovoltaics where appropriate.

Energy Storage (DSP E6, p. 166): Because wind and solar are intermittent sources of energy, massive amounts of energy storage are needed to ensure reliability. More battery storage is needed than the goal set by the NYS PSC of 3000 MW (3 GW) of storage by 2030, which was based on a 50% renewable energy goal. With the Climate Act increasing this to 70%, significantly higher levels of energy storage will be needed, Governor Hochul has already doubled the earlier target to 6 GW in this year's budget, and that goal will need to be increased to 9 GW by 2030. A recent Power Grid Study[24] identified the need for more than 15 GW of energy storage by 2040 and ultimately 20 GW lasting 4-8 hours to meet the increased demand driven by beneficial electrification of buildings and transportation. The Scoping Plan needs to fund research and development of short term (8 hours or under) and longer term (several days) battery storage and support the acquisition of batteries. Battery storage is critically important to decarbonizing our energy system, meeting peak energy demands, supporting a resilient grid, and keeping consumer costs affordable. Other recommendations include:

- NYS Public Service Commission should update its 2018 Energy Storage Roadmap[25]
- NY State must provide significantly increased funding for energy storage deployment
- Energy storage must be incorporated into energy delivery, transmission, and distribution planning
- Storage must be a priority for first responders, emergency services, health care facilities and warming/cooling centers

Net metering protocols must be modified to provide stronger incentives to increase the installation of new solar arrays. According to the Solar Energy Industries Association (SEIA)[26], net metering "allows residential and commercial customers who generate their own electricity from solar power to sell the electricity they aren't using back into the [energy] grid" at retail price. **The Consumer Benefit Charge (CBC)** levies a surcharge on owners of new solar installations to enjoy this premium market rate for energy they provide to the grid. **This creates a disincentive for residents, small businesses and their developers to install solar infrastructure and should be repealed.**

The CBC was applied to on-site residential and small commercial projects that receive utility permission to operate (PTO) on or after January 1, 2022. Such projects will pay a reduced CBC if they opt into the Value Stack.

The CBC does not apply to

- Projects receiving PTO prior to January 1, 2022
- Front-of-the-meter photovoltaic (PV) systems including community solar
- Community solar off-takers
- On-site commercial projects with a demand charge

Chapter 14. Industry

State of the Sector (DSP 14.1): The Scoping Plan must prohibit the conversion of fossil-fueled power plants to facilities that primarily engage in excessively high-energy consumption, such as data centers or cryptocurrency mining operations.

Chapter 15. Agriculture and Forestry – Wetlands

Protecting and Enhancing Water Quality: Agriculture, Wetlands and Tributaries (DSP 15.2, p. 207)

New York's Climate Resilient Farming (CRF) grant program, which demonstrates how climate-responsive efforts can be integrated alongside existing environmental and **water quality agricultural programming,** has awarded $12 million in project funding, resulting in an estimated 300,000 MT CO2e reduced or sequestered. CRF are practices which make farming more resilient in the presence of climate change while also minimizing farming's contributions to climate change. Techniques range from selection of appropriately robust crop varieties to the use of appropriate tillage practices. These should be encouraged, and education and encouragement provided. The proper uptake of nutrients by plants

reduces the likelihood of **nutrients entering water bodies**, and maintains or potentially increases crop yields promotes food security. This program appears to be effective and we expect it will continue to have benefits in the future through education of farmers. It should be continued and, if possible, expanded.

Expand funding and technical assistance: The Department of Agriculture and Markets (AGM) and the Soil and Water Conservation Committee (SWCC) should increase support for planning, technical assistance, and soil health or nutrient management practice implementation through the **Agricultural Environmental Management (AEM)** Framework and associated programs, concomitant with the **Agricultural Nonpoint Source Abatement and Control (AgNPS) water quality program.**

Chapter 16. Waste

State of the Sector (DSP 16.1): Greenhouse gas emissions from the waste sector represent about 12% of statewide emissions, including landfills (78%), waste combustion (7%), and **wastewater treatment (15%)**. Most of these emissions represent the long-term decay of organic materials buried in a landfill, which will continue to emit methane at a significant rate for more than 30 years. It also represents both the landfilling of waste in New York and the exporting of waste to landfills in other states. Composting and other forms of managic of organic materials can significantly reduce emissions from this sector.

Waste Reduction, Reuse and Recycling (DSP 16.2): In the words of our founder, the late Pete Seeger, this adage best represents Clearwater's view on waste: ***"If it can't be reduced, reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned or removed from production."***

Water Resource Recovery Conversion (DSP 16.4):

Sewage Treatment Plants: Despite the improvements that have resulted from the Clean Water Act, wastewater treatment facilities, also called Publicly Owned Treatment Works (POTWs) are still a major source of Hudson River pollution. This is due, in some cases, to inadequate monitoring and regulation of the plants' operation.

Water Resource Recovery Facility Conversion (DSP 16.2, p. 244):

Water Resource Recovery Facility (WRRF) Conversion is the process of expanding regular POTW facilities into facilities that are capable of capturing and storing organic materials from wastewater. While it would be beneficial to a circular economy, the infrastructure that would meaningfully support such a transition does not exist. POTWs are not inherent "moneymakers," meaning additional funding for this transition would have to be allocated. The argument exists that the money could come from selling the captured material to organizations that can use it, but such organizations do not currently exist that would make this method of funding viable. If the captured material is not handled on-site, it must be transported elsewhere, raising concerns of further infrastructure development. Until biosolids and renewable biogas have a more prominent usage in our economy, funding should be directed elsewhere.

Reduce Fugitive Emissions from Water Resource Recovery Facilities (DSP 16.7, p. 247):

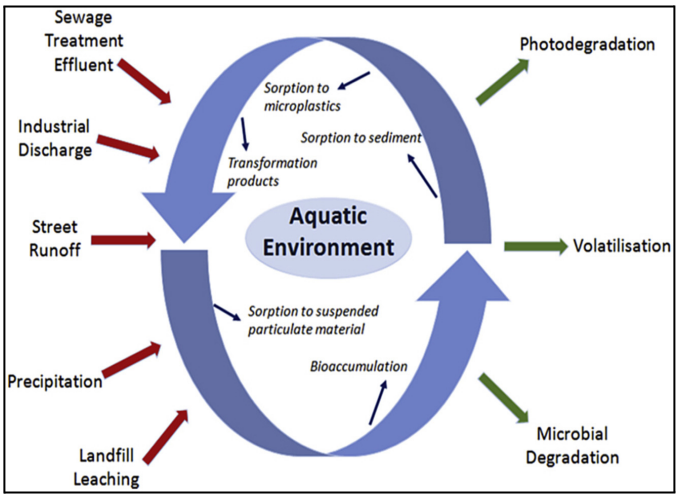
Water Resource Recovery Facilities filter contaminants and pollutants out of water, producing clean water alongside biosolid and biogas byproducts. WRRFs require immediate action to mitigate GHG emissions, however, the emission rates of WRRFs remain under-researched. As monitoring and reporting on these facilities is currently deficient to the point of hindering further emissions reduction action, the DSP's recommendations for prioritizing data collection in these facilities is the most appropriate near-term course of action. Separately, the removal of septic tanks and replacement with municipal sewer collection systems and advanced onsite treatment facilities is also an important step in the mitigation of fugitive emissions and subsequent health and pollution impacts. Unfortunately – as noted with reference to WRRF conversion – these projects incur heavy costs without real profit and

would likely need State support. Despite this it is important to note that this replacement is significant when prioritized for Disadvantaged Communities and when converted into on-site treatment plants to minimize additional emissions. Resources should be prioritized for data collection of emissions rates and include septic removal and suitable on-site conversion when essential.

Combined Sewer Overflows: An important initiative to address Combined Sewer Overflow (CSO) discharges of untreated sewage into rivers or tributaries is to separate the storm drains from sanitary sewers so that stormwater does not flow through Sewage Treatment Plants (STPs), where it can overwhelm them. Recently the City of Newburgh began a much needed project to do just that. See: Newburgh Breaks Ground on Downing Pond Projects[27]. These CSOs can also increase the prevalence of food- and water-borne diseases, as previously mentioned in **Public Health (Ch. 8).** The state should explore means by which future stormwater systems are prevented from using or combining with wastewater sewers.

Implementing Green Stormwater Infrastructure is another valuable solution for reducing the burden a heavy influx of water places on wastewater treatment plants. In 2014, Clearwater worked with eDesign Dynamics to create a green stormwater management plan[28] that includes tree pits, bioswales and other natural systems that both enhance the urban landscape and reduce stormwater runoff[29]. We also worked with students at Nubian Directions, who learned stormwater management, built a model project, and worked with neighbors and landlords to develop Green Infrastructure (GI) plans for their properties. These models are easily replicable and very much needed to ensure resilience in the face of climate change. New York City's Department of Environmental Protection has made substantial investments in this kind of infrastructure to good effect. A closely related aspect of urban landscaping is the introduction of trees, which have additional benefits, as mentioned above under **Public Health (DSP 8).**

Emerging Contaminants: According to EPA, an emerging contaminant is a chemical or material characterized by a potential, or real threat to human health or the environment or by a lack of published health standards. A contaminant also may be "emerging" because of the discovery of a new source or a new pathway to humans. Unlike PCBs, which can easily be filtered out of water, many other contaminants are either difficult to treat or have not been adequately regulated, including PFOS/PFAS and pharmaceuticals. See graphic: Occurrence, fate and transformation of emerging contaminants in water: An overarching review of the field[30]



Refrigerant Diversion (DSP 16.5):
When chlorofluorocarbons (CFCs/"Freon") were banned by the Montreal Protocol, refrigerant manufacturers switched from the highly ozone depleting CFCs to Hydrofluorocarbons (HFCs), which are highly potent GHGs. While not posing as much of a threat to the ozone layer, HFCs can have a Global Warming Potential (GWP) up to 11,700 times that of CO_2[31]. While the DSP includes plans for refrigerant diversion, there should be greater emphasis on requiring usage of ultra-low GWP refrigerants as well as requiring the implementation of leak detection technology. Leak detection technology will not only help refrigerant owners save money, but will also prevent further release of this dangerous GHG.

Chapter 19. Land Use

Protecting and Restoring Wetlands (DSP 19.2, p. 283):

Improve and expand the regulation of New York Freshwater Wetlands: The State should enact legislation to improve and expand regulation of all freshwater, non-tidal wetlands, and adjacent

areas by fundamentally changing New York's statutory system for regulating these environments, including shifting wetland maps from regulatory to informational, and establishing jurisdictional boundaries through field delineation. Such wetlands help to sequester carbon and can contribute to NY's GHG reduction goals. Governor Hochul should sign Senate Bill S8378C into law, which would permit local governments to implement more stringent regulation of wetland pesticide application.

Assess climate vulnerabilities during land and water planning: DEC, DOS and other agencies that fund land or water planning activities should adopt policies to ensure all State-funded land and water use plans include assessment of climate vulnerabilities and, as appropriate, strategies to promote resilience and reduce risk. See further comments in **Adaptation and Resilience (Ch.21)** below relating to SEQRA.

Establish a farm water and energy efficiency program: Ag and Markets (AGM) and NYSERDA should develop and support a water and energy efficiency realization program to meet agricultural needs related to climate change, including decision-support tools, power upgrades, and strategies to reduce equipment costs.

Update wetland and natural resource mapping: The NYS DEC should apply the best available technology to update maps of wetlands (regulated and unregulated; tidal and non-tidal); shallow water habitats, Significant Coastal Fish and Wildlife Habitats, Coastal Erosion Hazard Areas, and priority forests and natural areas. DEC should also ensure all maps and inventories are accurate and publicly available, schedule recurring updates using the best available technology, and replace Article 24 wetland maps with updated informational Article 24 wetland maps. This effort should engage the Office of Parks, Recreation and Historic Preservation (OPRHP), the Department of State (DOS), conservation NGOs, research partners, Soil and Water Conservation Districts (SWCDs), and other State agencies in the process.

Consider emerging and tested mapping technologies, including those applied in light detection and ranging technology (LIDAR). Enhanced Wetlands Mapping in the New York City Watershed, Land Cover Mapping and Modeling Initiatives in Chesapeake Bay Watershed and Delaware River Basin, Object-based Wetland Mapping Approach for Pennsylvania, and National Oceanic and Atmospheric Administration's new high resolution land cover data products.

Chapter 20. Local Government:

As mentioned above Clearwater strongly recommends that:

- Utilities should be required to work directly with local governments to plan and implement grid upgrades.
- The State should support the use of the Scenic Hudson or other Solar Mapping Tool by municipalities to ensure wise development of solar and other renewables and energy storage. At minimum this should be included in the Climate Smart Communities High Impact Actions and as a climate solution that can receive points for Climate Smart certification. It could also become a mandatory requirement for receiving State funding.

Chapter 21. Adaptation and Resilience:

The Climate Justice Working Group (**CJWG)** generally supports the call for continued efforts to improve reliability and resiliency to extreme weather events and climate change, but suggests that the NYISO and related agencies should be more transparent and better disseminate information to community members and local energy advocates. It also suggests that there is a need to address extreme heat vulnerabilities beyond overcapacity to the grid, **such as the increased water demand for cooling of power plant systems** and the expansion of metal in power lines as a result of extreme heat resulting in sagging power lines leading to an increased risk of tree-strike related fires.

Roads and Railroads: The flooding which results from severe storms has other effects in addition to overwhelming wastewater treatment plants. It can cause destruction of roads and railroads which can take months to repair. When the flooding is in floodplains which are brownfields, it can release toxins which had been safely underground. These considerations and risks heighten the importance of and motivation for the stormwater and sea-level rise solutions and responses outlined above.

More locally, in 2011, Tropical Storm Irene caused $14 billion of damage across much of the east coast of the US and Caribbean, flooding main streets, washing out roads and other infrastructure, **overwhelming wastewater treatment plants,** and leaving hundreds of thousands without power. Not two weeks later, Tropical Storm Lee came through New York and overwhelmed communities still dealing with the aftermath of Irene. We have experienced additional severe storms since.

We must accept that sea-level rise will continue despite any actions we may take in the short to middle term, and invest in preparing for the consequences of this inevitability. Low-lying coastal or riverine infrastructure – such as New York's subways – must continue to be hardened. Siting of future facilities must take into account the certainty of sea-level rise. Strategic relocation of transportation infrastructure out of future floodplains must be planned for both ocean and tidal estuaries such as the Hudson River.

An important consequence of these storms is the effect their heavy rainfall has on wastewater treatment because, in many cases, rainfall which falls on streets and parking lots is channeled into sanitary sewers, where the additional water load overwhelms treatment plants, which are then forced to discharge untreated sewage into waterways.

Scenic Hudson has a useful Sea Level Rise Mapper available at http://www.scenichudson.org/slr/mapper

Evaluate Opportunities to Ensure Equitable Consideration of Future Climate Conditions in Land-Use Planning and Environmental Reviews (DSP AR6): The purpose of the NY State Environmental Quality Review Act (SEQRA) is to ensure environmental considerations are an integral part of governmental decision making, which is why SEQRA is more powerful from a regulatory standpoint than its national counterpart, NEPA. It is paramount that SEQRA is updated to ensure the goals and requirements of the CLCPA are implemented when SEQR actions are undertaken. While improvements were made in 2018 requiring that Environmental Impact Statements (EISs) must not only account for climate change impacts but also for mitigation efforts, this will not be enough to adequately implement the CLCPA when developing policies or regulations or undertaking actions or projects. SEQRA must be expanded to specify how each action is required to utilize renewable energy, approach zero GHG emissions, sequester carbon, reduce waste, and implement other climate solutions as appropriate in order to actively meet the goals set forth by the Climate Act.

Chapter 22. Essential Elements

Outreach and Education: More expanded, interactive, and targeted education is needed, especially in Low-to-Moderate Income (LMI) communities, and must be supported by the state, as communities unfamiliar with renewable energy siting and implementation may oppose beneficial electrification of their homes.

Different types of communities require area-specific education, including:

- **Urban** – Rooftops and parking lots are good locations; public outreach is needed to encourage support for projects. Solar installation training for priority community members will provide jobs and help increase acceptance.
- **Suburban** – Solarize group purchase programs incentivize new infrastructure; community solar encourages participation by businesses and residents who cannot install on their own property.
- **Rural** – Many more solar installations will be needed to electrify the grid; rural communities must be informed about their options, possible benefits, and how their communities will be affected by medium and large-scale solar development.

Education for EJ Priority Communities must be comprehensive, accessible, and widely promoted to ensure that communities most vulnerable to climate change and most affected by historically harmful industrial pollution are informed of NYS environmental policies and aware of the resources available to them to become more resilient, sustainable, and environmentally protective.

Communities must be funded and supported in mapping their own communities for natural resources, the potential for solar and other renewable and storage, and other places of importance, to allow them more autonomy to make informed decisions and ensure wise urban planning.

Widespread education about climate science for young people is also needed to evoke a better understanding of the climate crisis. As the CLCPA's goals entails a decades long endeavor that necessitates public buy-in, educating the next generation is critical to achieving meaningful public support and participation in this historic and transformative process.

Conclusion: The intent of Clearwater's comments is to assure that while we move towards renewable energy, grid modification, carbon sequestration, energy conservation, and clean transportation, we do so with sufficient funding and a focus on the importance of protected watersheds, plans to address sea level rise and increased storms, support to riverfront communities, and equity to environmental justice communities as solutions are implemented. These priorities will be critical to achieving a successful transition to a carbon neutral economy by 2040.

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Appendices

Appendix 1: Clearwater Comments on Draft Scoping Plan submitted July 1, 2022

We request that the comments now submitted be considered an addendum to these initial comments.

To the Climate Action Council: July 1, 2022

Hudson River Sloop Clearwater, Inc. would like to express our sincere appreciation for the work of the NYS Legislature in developing and passing the Climate Leadership and Community Protection Act and the state administrators who created the Climate Action Council's Draft Scoping Plan. As New York State proceeds with implementing this plan, we would emphasize the need to keep the protection of our water resources and watersheds a high focused priority throughout our conversion to a carbon neutral economy.

For New York to successfully implement the Draft Scoping Plan and establish a carbon neutral economy by 2040 the state must prioritize the funding and resources needed to make this happen at each stage of the Plan. Clearwater strongly supports aggressive funding of the Plan's initiatives so that the timeline can become a reality and the net benefit-cost findings as outlined in the Plan will be achieved.

Hudson River Sloop Clearwater has actively participated in the Mid-Hudson Regional Sustainability Coalition (MHRSC) since it was formed in 2010, working on the Water and Energy Working Groups and helping to draft the Mid-Hudson Regional Sustainability Plan. Subsequently, the MHRSC submitted substantial comments on the Draft Scoping Plan, which had been reviewed by the entire 7-County Energy Working Group. As coordinator of that set of comments, Clearwater agrees with all that is contained therein and endorses their comments submitted to the Climate Action Council, which are attached.

Water is so central to human existence that it must be a key focus of any activity to stem climate change. The anticipated - and already demonstrated - effects of climate change on water bodies and related infrastructure are severe, important, and widespread. The Draft Scoping Plan must keep water quality and water system infrastructure a focused priority.

Clearwater's mission to defend and restore the Hudson River inspires our need to comment on how the Draft Scoping Plan needs to address the following issues.

The Plan should address adaptive reuse of Hudson River closed or closing shoreline facilities like the Indian Point Nuclear Power Plant and the Danskammer fossil fuel plant. The Climate Act requires the state to boost its 2030 battery storage goals to at least 4,200 MW. While New York invests in renewable energy and should redirect all energy subsidies to support renewable energy, these plants could be converted to solar generation and energy storage facilities to support the new demands on the grid.

The Plan should recommend significant funding for Water Resource Recovery Facility Conversion as outlined on DSP 16.2, p. 244. Municipalities will need financial support to improve or replace antiquated

wastewater and stormwater treatment facilities to assure that their discharges do not degrade the hard-won water quality of New York's rivers and streams.

Funding also needs to be applied to monitoring and creating new wastewater infrastructure as noted in the section to Reduce Fugitive Emissions from Water Resource Recovery Facilities (DSP 16.2, p. 247.)

Freshwater wetland protection as outlined (LU4 Protect and Restore Wetlands, p. 283) also needs to stay a focused priority during implementation.

Conclusion: The intent of Clearwater's comments is to assure that while we move towards renewable energy, grid modification, carbon sequestration, energy conservation, and clean transportation, we do so with sufficient funding and a focus on the importance of protected watersheds, plans to address sea level rise and increased storms, support to riverfront communities, and equity to environmental justice communities as solutions are implemented. These priorities will be critical to achieving a successful transition to a carbon neutral economy by 2040.

Sincerely,

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Stephen P. Stanne, Board President
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Appendix 2: Move On List of Recent Articles Stressing the Global Climate Emergency

- "UN warns Earth 'firmly on track toward an unlivable world,'" Associated Press, April 4, 2022 https://act.moveon.org/go/161753?t=6&akid=321320%2E29792733%2EdskDB1
- "It's 70 degrees warmer than normal in eastern Antarctica. Scientists are flabbergasted." *The Washington Post*, March 18, 2022 https://act.moveon.org/go/161754?t=8&akid=321320%2E29792733%2EdskDB1
- "UN Weather Agency Sounds Alarm on Extreme Events in Antarctica," Common Dreams, April 2, 2022 https://act.moveon.org/go/161755?t=10&akid=321320%2E29792733%2EdskDB1
- "Climate-Linked Drought Leads to First Ever Shutdown of California Hydropower Plant," Common Dreams, August 6, 2021 https://act.moveon.org/go/161756?t=12&akid=321320%2E29792733%2EdskDB1
- "Siberia's wildfires are bigger than all the world's other blazes combined," *The Washington Post*, August 11, 2021 https://act.moveon.org/go/161757?t=14&akid=321320%2E29792733%2EdskDB1
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- "'We Lost Greenville': Wildfire Decimates California Town," *US News & World Report*, August 5, 2021 https://act.moveon.org/go/161759?t=18&akid=321320%2E29792733%2EdskDB1
- "The death toll of Europe's heat wave," *Politico*, October 29, 2021 https://act.moveon.org/go/161760?t=20&akid=321320%2E29792733%2EdskDB1
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