

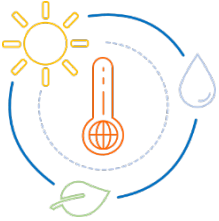


Loon Lake in Loon Lake, NY. Photo Credit: NYSERDA



Biomass

- On January 24, 2022, the U.S. Environmental Protection Agency (EPA) announced the withdrawal of Alternative Test Method (Alt)-125 and Alt-127 for cordwood stoves in the Federal Register (Vol. 87, No. 15) and that renewal or recertification of a wood heater model previously certified using Alt-125 or Alt-127 would not be granted a waiver and must be retested using a valid test method at the time for renewal or recertification.
- The EPA concluded west coast acceptance testing of the Integrated Duty Cycle (IDC) cordwood stove protocol at the end of 2021. In 2022, NYSERDA and its research partners turned focus to EPA acceptance testing of hydronic heater test methods. East coast acceptance testing for cordwood stoves and pellet-fired hydronic heaters will begin in 2022, while EPA will focus on cordwood hydronic heaters in the west coast lab. NYSERDA researchers also worked with EPA to determine how NYSERDA research could be used to update EPA emission factors for the National Emissions Inventory (NEI).



Climate Change

- During this quarter, the eight technical workgroups (TWGs) worked hard to deliver their first chapter drafts in mid-March. Although just partial drafts, they allowed the project team to see progress and identify any concerning issues. In addition, the TWGs held their first and second meetings with their respective Sector Advisors. The Sector Advisors will bring additional perspectives to the work and provide feedback and input to their respective sectors.
- Work is nearly complete on the first phase of a project exploring the potential implications for resilience from the electrification of buildings—what happens when the power goes out? The first phase is determining the priority research needs around this question; the next phase, to begin in early Q2, will perform analysis to inform some of the identified research needs.



Ecosystem Response

- Dr. Colin Beier (SUNY ESF) has been upgrading the Adirondack Long-Term Monitoring at Huntington Forest website (<https://adk-ltm.org/>). Through agreement #122681, NYSERDA has been supporting Dr. Beier in developing this new website that allows the user to perform custom data queries/ summaries, visually preview queried data before downloading it, and export data into multiple formats. In addition, the new system fully automates the flow of real-time sensor data into the Huntington Wildlife Forest Long-Term Monitoring (HWF-LTM) database, making the data more rapidly available for analysis (i.e., daily updates instead of quarterly).

Map of the Huntington Wildlife Forest (HWF) .



Photo Credit: Adirondack Long-Term Monitoring

- A preliminary summary report generated by Dr. Kevin Rose (Rensselaer Polytechnic Institute) and Dr. Peter McIntyre (Cornell University) is expected to be completed in Q2 2022. This report will summarize the participant discussions during the workshop held in July 2021 and next steps on the development of a plan for SCALE: A Survey of Climate Change and Adirondack Lake Ecosystems. A lot of follow-up discussion on this effort has been made during the last quarter and some press as well, including an article published by the [Adirondack Explorer](#). You can check out a more detailed description of the four-priority research and management questions identified by Dr. Rose and Dr. McIntyre through a downloadable attachment in the Adirondack Explorer article.



Land Based-Renewables

- The Agricultural Technical Working Group (A-TWG) convened in January and February 2022. Pace Law Center presented a scoring structure for the agriculture, environment, and collaboration/ innovation sections of the Smart Solar Siting Scorecard (“Scorecard”) and described the difference between a mandatory and an optional strategy for discussion with the A-TWG. In addition, NYSERDA provided an update on the development of an Agrivoltaics Incubator RFP, planned for release in Q2 2022, and presented information on the connection between the 10 GW Distributed Solar Roadmap and agriculture. See the press release announcing its approval by Governor Hochul on [April 14, 2022](#). Keep up to date with what the A-TWG is up to by visiting the [A-TWG website](#).

A monitoring site for the Tetra Tech Bird Study.



- A team from Tetra Tech, led by Peggy Grant, has been making progress on three studies they are conducting as part of their agreement (#154274) awarded through PON 4270: Environmental Research – PV Site Design, Information Gaps, and Mitigation Opportunities. This project is looking at utility scale solar effects on groundwater hydrology and wintering raptor and grassland bird threatened and endangered (T&E) species; and reviewing literature to identify decommissioning best management practices and mitigation opportunities. Between November 2021 – March 2022, Tetra Tech conducted a wintering raptor survey (WRS) at one of three sites where they are performing grassland breeding bird surveys and wintering raptor surveys (see photos) and continued to collect groundwater levels, temperature, and pressure as well as air temperature and pressure measurements at another one of the three sites. They have been collecting groundwater and air data at this site since April 2021.



Off-Shore Wind

- The Environmental Technical Working Groups (TWGs) met on February 15 to discuss early coordination among offshore wind leaseholders on environmental topics. A summary of this meeting and previous meetings can be found on the E-TWG website (<https://www.nyetwg.com/e-twg-meeting-archive>).
- The NYSERDA Offshore Wind Learning from the Experts webinar series celebrated its first anniversary in March 2022. In the first year alone, more than 2300 people joined the live sessions. The series continues to deliver informative presentations from experts on important topics in offshore wind energy, including technology, development practices, regulatory processes, and research initiatives. More information can be found here: <https://www.nyscrda.ny.gov/osw-webinar-series>
- Captain Anthony (Tony) DiLernia, NY's recreational fisheries liaison, attended the Atlantic City Boat Show from March 1st through March 6th. While there, Tony manned a NYSERDA booth focusing on issues important to the recreational community and answered general questions about offshore and the New York State offshore wind projects. Over 40,000 people were in attendance while hundreds stopped by the booth to learn about offshore wind development in the NY Bight and the work that NY is doing to develop the industry in an environmentally responsible and cost-effective manner.

Captain Tony DiLernia at the Atlantic City Boat Show.



(Offshore Wind, continued...)

- The Fisheries Technical Working Group (F-TWG) held a virtual meeting on March 23rd. Over 40 members were in attendance to learn about the BOEM lease auction for the NY Bight, new BOEM leaseholder stipulations, and information regarding the draft mitigation framework document (referenced below). Additionally, the topics of fisheries research prioritization, cross-leaseholder coordination for the NY Bight, and upcoming mitigation plan meetings were discussed during the meeting. For additional details please visit the F-TWG website: <https://www.nyftwg.com/meeting-summaries/>
- NYSERDA released a [draft](#) for New York's third offshore wind solicitation for public comment, which closed on April 8. Under this solicitation, NYSERDA will procure an anticipated 2,000 megawatts minimum of offshore wind energy, leveraging \$500 million in New York State funding. NYSERDA was interested in feedback from potential bidders and supply chain participants, as well as other New York and regional stakeholders.
- [Registration](#) is open for the 2022 State of the Science Workshop on Wildlife and Offshore Wind: Building on Existing Knowledge and Emerging Collaborations. The workshop will be held in Tarrytown New York from July 26 through 28.
- A Project Advisory Committee meeting was held for the Multi-scale Relationships Between Marine Predators and Forage Fish project, conducted by the Biodiversity Research Institute under Evan Adams. The team provided an update on forage fish distribution and aggregations modeling, and seabird movements and connections to forage fish distributions.
- The Bureau of Ocean Energy Management (BOEM) continues to make progress developing a draft mitigation framework in response to their Request for Information (RFI) on avoiding, minimizing and, if needed, compensating for impacts from offshore wind energy projects to commercial and recreational fisheries. BOEM, working with the National Marine Fisheries Service and affected coastal states, has established a working group to discuss data needs and gaps to further evaluate the potential exposure of fisheries to the development of offshore wind. NYSERDA continues to be a part of these ongoing discussions with BOEM, other states, and stakeholders. It is expected that BOEM will publish the draft mitigation framework for public comment in the middle of Q2. Further details can be found here: <https://www.boem.gov/renewable-energy/request-information-reducing-or-avoiding-impacts-offshore-wind-energy-fisheries>

Program Reports and Papers

Program Reports & Papers posted recently include:

Air Quality and Related Health Research: Particulate Matter (PM), Ozone and Co-Pollutants

Hopke, P.K.; Hidy, G. Changing Emissions Results in Changed PM_{2.5} Composition and Health Impacts. *Atmosphere* 2022, 13, 193. <https://doi.org/10.3390/atmos13020193>

Biomass

Chen, Y., Rich, D.Q., Hopke, P.K., 2022. Long-term PM_{2.5} source analyses in New York City from the perspective of dispersion normalized PMF. *Atmos. Environ.* 118949. <https://doi.org/10.1016/j.atmosenv.2022.118949>

van Wijngaarden E, Zhang W, Lin S, Thurston SW, Hopke PK, Masiol M, Squizzato S, Croft D, Rich DQ. Triggering of neurodegenerative hospital admissions and emergency room visits by fine particle concentrations in six urban centers in New York State: The New York State Accountability Study. *Annals of Epidemiology* 2021;54:79-86. <https://doi.org/10.1121/10.0009237>

Climate Change

[21-29 Carbon Cycling and Environmental Impacts from Growing, Harvesting, and Processing Forest Biomass in New York State \[PDF\]](#)

Ecosystem Response to Atmospheric Deposition of Sulfur, Nitrogen and Mercury

[22-01 Methods of Liming to Accelerate the Reversal of Acidic Deposition in Calcium-Depleted Adirondack Watersheds \[PDF\]](#)

Offshore Wind

Popper, A.; Hice-Dunton, L.; Jenkins, E.; Higgs, D.; Krebs, J.; Mooney, A.; Rice, A.; Roberts, L.; Thomsen, F.; Vigness-Raposa, K.; Zeddies, D.; Williams, K. (2022). Offshore wind energy development: Research priorities for sound and vibration effects on fishes and aquatic invertebrates. *The Journal of the Acoustical Society of America*, 151, 205-215. <https://doi.org/10.1121/10.0009237>