

TC CPI | Tompkins County Climate Protection Initiative

2023 TCCPI MEMBER ACCOMPLISHMENTS

Alternatives Federal Credit Union

[Alternatives Federal Credit Union](#) (AFCU) is a regional cooperative [Community Development Financial Institution \(CDFI\)](#), serving Tompkins, Schuyler, Chemung, Steuben, Cortland, Cayuga, Seneca, and Tioga Counties in New York State. Since 1979, Alternatives has grown its impact by fulfilling a mission to build and protect wealth for people with diverse identities who have been historically marginalized by the financial industry, especially those with low wealth or identifying as Black, indigenous, or people of color.



Access to Financial Services @ Alternatives

- As a CDFI, we have always been guided by community needs, and we expect to see those needs continuing to change with a changing climate. We are dedicated to working with our community and partners to explore solutions and design financial products and services that will best support resiliency and stability for low to moderate income households and our small business members.
- Access to financing starts with account access. We aim to make the account opening process accessible for all, with options to [open accounts online](#), as well as [easy appointment scheduling for in-person or virtual account consultations](#).
- Members and potential members can also easily:
 - Schedule appointments and consultations with our [account services staff](#) – for information on opening business, personal, or youth accounts, or simply seeking information (Spanish speaking appointments available).
 - Schedule appointments with our [business services team](#) – from technical assistance to lending consultations.
- To save on energy and transportation costs, we encourage our members to use our Digital Services, including Online Banking, Bill Pay, Mobile Banking and Remote Deposits. These and other services are available to members and member businesses and offer convenience, flexibility, and ease for completing their necessary and day-to-day transactions -- from anywhere.
- In 2023 we continued to deliver financing supporting energy efficiency upgrades for our members, including for solar panels, heat pumps, weatherization services, and electric vehicles.
- We have continued our work as an affordable housing lender, focused on helping low-income and BIPOC households become mortgage-ready. Our FAIR Mortgage (Finance Addressing Inequality and Racism) is specifically designed to remove barriers to home ownership for low-income or first-generation moderate-income borrowers.
- Our rooftop solar panels continued to provide a substantial part of our electricity during the year and we also enjoyed use of solar powered lights in our parking lot.
- Our facilities staff and the staff “Green Team” works on improving energy efficiency and reducing waste, including managing composting in the staff lunchroom, maintaining bottle filling stations to reduce single use plastic, and encouraging mindfulness regarding use of space heaters and extra lighting.

- Many Alternatives staff work on a hybrid home/office work schedule, reducing the number of us commuting to work alone in gas fueled cars. Hybrid and remote work schedules for some of our staff have also reduced the overall energy consumption in the building due to fewer lights, small heaters, fans, computers, and other electronics running constantly throughout the day.

Central NY Rotary Environmental Sustainability

This past year many Rotary teams in Central New York worked on the merger of three Rotary districts. The merger will be official on July 1. Many teams including environmental sustainability were working together during 2023. The new district will have about 3,000 members in over 100 communities. We have a rich array of natural assets, including the Finger Lakes, many major rivers, the Catskills, and the Great Lakes.

The district can serve as an additional platform for accelerating environmental progress in Upstate New York. Projects such as the Ithaca Green New Deal, Finger Lakes ReUse, and the Ithaca 2030 District can be introduced to cities and communities throughout our region. Our primary focus is making a bigger impact through collaboration.

The work of our districts is guided by ESRAG, Environmental Sustainability Rotary Action Group. ESRAG has divided the world into 13 regions. Our region covers Eastern North America from Canada to the Caribbean. We



held our first project fair last January. Our holistic strategy for the Susquehanna Water Shed was one of the featured projects. Our region provides a monthly forum for presentations that is open to the public. Diane Cohen provided a very well received program on Finger Lakes ReUse. The Ithaca Rotary Club now supports operation of the ReUse center.

The largest project in 2023 has been the furthering of a strategy for the Susquehanna Watershed. This strategy is holistic and incorporates protecting our natural assets, biodiversity, and the climate challenge. The strategy is also sensitive to economic development and support to under-served populations and communities. The long-term plan is to incorporate the entire river and the Chesapeake Bay. This approach will provide ESRAG and partners a focus on an entire water system. Projects and programs developed here can be shared with other watersheds.

Our district also partners with other districts. For three years we have been collaborating with the Cape Cod region on their Connected Communities Project that provides a plan for net zero carbon emissions and net water discharge. The project has been presented to the Department of Energy and the US Department of Agriculture. A proposal was made to the 2024 EarthShot Competition. This green competition awards 5 winners each year with \$1.3 million each for their initiatives. Our two districts have many best practices we can share with each other.

In 2023 Rotary has joined forces with many organizations. A major focus was the 2023 Clean Energy Career Summit. Whether you are involved with energy services or the manufacture of clean energy technology, a major challenge is attracting and training the workforce. During the year we interviewed workforce development agencies, companies, underserved populations, unions, and others to prepare for the Summit. We identified many significant barriers to employment including poverty, public transportation, day care, housing, and others. Rotary can be a partner in solving these challenges.

Most of our clubs have an array of environmental projects too numerous to cover in this report. One example would be the Owego Rotary Club. For their 100th anniversary of service to the community, they developed a 6-acre nature reserve with trails, native plants, and a pollinator garden. In July they are hosting a paddle event and some of their members support an annual clean energy summit primarily focused on the homeowner and renter.

Focus for 2024 (Partial):

1. Provide a strong environmental sustainability strategy for CNY Rotary.
2. Support the EarthShot proposal for the Cape Cod region and our district.
3. Further the reuse concept through expansion of the Finger Lakes ReUse approach to other communities, expansion of the Sierra Clubs "Move Out" project, and Lithium-Ion battery recycling. The "Move Out" project collects materials left by students at the end of the school year and then provides these materials for use by 30 organizations. In 2023 over 9 tons of materials were collected.
4. Support ESRA's "Million Solar Panel" program including solar panel installation on Habitat for Humanity Homes.
5. Support the emerging National Clean Energy Communities Fund. This fund is privately funded and targets acceleration of environmental progress in the residential market. This fund can benefit ESRA projects.
6. Develop the Rotary Way nature area as a premier showcase of Rotary's role in the community.

Citizens Climate Lobby, Southern Tier and Finger Lakes Chapter

Citizens Climate Lobby (CCL) is a nonprofit, nonpartisan, grassroots advocacy organization focused on national and state-level policies to address climate change. Our Southern Tier and Finger Lakes chapter includes 983 members from three Congressional districts: NY-19, NY-23, and NY-24.



Citizens' Climate Lobby

work with you! Learn more [here](#).

Many climate solutions are needed. Citizens' Climate focuses on bipartisan climate policies. In particular, we support national and state-level solutions that A) lower carbon emissions significantly B) don't hurt low- or middle- income people and C) have bipartisan appeal, so they can pass and last. To raise awareness and generate support for such policies, we have local conversations, publish media, and reach out to our legislators. It's also important to us to civilize dialogue across the political spectrum. Our volunteers span that spectrum, and we work with legislators of all stripes. We'd love to

In 2023, members of our Southern Tier and Finger Lakes Chapter:

- Published eight letters and op eds in local papers including Finger Lakes Times, Orchard Park Bee, Buffalo News, Tompkins Weekly, and Columbia Paper
- Participated in 17 lobbying events with Senators Gillibrand and Schumer; Representatives Molinaro, Nadler, Langworthy, Stefanik, Tenney, Goldman, LaLota, and D'Esposito; State Senators Hinchey and Webb; and Assemblymember Kelles
- Participated in a town hall with Representative Molinaro
- Had State Senator Harkham speak to our state-level action team
- Participated in other New York state-level actions, such as analyzing state legislative priorities
- Held six outreach events (presentations and tabling events)
- Contacted legislators 946 times

City of Ithaca

Climate Justice

- Completed and presented the Justice50 framework, the operationalization of climate justice in government budgeting.
- Collaborated with research faculty at Cornell University and Cayuga Health Partners to begin mapping health vulnerabilities and their intersection with climate change and air toxics.
- Completed advanced research and determined an internal cost of carbon, which influenced the projected cost of inaction on climate change in the City of Ithaca. Conservatively, it is estimated robust climate action produces a net savings of approximately \$660M.

- Received \$1.5M in Congressionally Directed Spending from Sen. Schumer, which will be used to complete energy assessments and a decarbonization roadmap for all Ithaca City School District buildings. In parallel, the funding will support 2 new cohorts of Energy Warriors, which will complete the necessary training and certifications to become BPI Energy Auditors.

Energy

- Adopted the Distributed Energy Resources Plan, a program that creates financial pathways for cooperative investment in low-carbon technologies.
- Began negotiations with the U.S. Department of Energy to scope and finalize plans for a Green Hydrogen as a Non-Wires Alternative pilot project at the Southworks campus.
- Contracted with Taitem Engineering to perform energy assessments and produce a decarbonization roadmap for government buildings.
- Entered Phase II of enforcement of the Ithaca Energy Code Supplement, which now requires a net emissions reduction of 80% in new buildings.
- Committed 9 municipal buildings to the 2030 District.
- The City's electrification program, Electrify Ithaca, managed by BlocPower, facilitated the electrification of 10 buildings, representing a total investment of nearly \$2M.
- In total, approximately 175 buildings have been electrified since January 2020.



Transportation

- Released an RFP and selected an awardee to complete a municipal fleet analysis and produce a fleet electrification roadmap to reach the IGND's goal of 50% fleet emissions reduction by 2025.

Collaborations

- Participated in the National Renewable Energy Lab's Cohort "Incorporating Community Voices in Clean Energy Planning and Deployment."
- Launched the Sustainability & Climate Justice Commission, a formal advisory board populated by city residents to provide guidance on IGND strategies.
- Worked with the Cornell PiTech program to hire a fellow tasked with modeling workforce needs to meet building stock electrification goals. The fellow determined that, in order to electrify all 4,242 *residential* properties in the City, approximately 51 new laborers will need to enter the job market each quarter between 2024 and 2030. This represents a total of 1,377 new green jobs over six years.
- Completed phase I of collaboration with KPMG and Augment City. Phase I created a digital twin of the city and modeled emergency service and transportation interruptions in the event of a 100-year flood.
- Created and deepened partnerships with over 200 local, national, and international organizations with allied missions to share successes, challenges, and resources.

Certifications/Awards

- Continued to pursue LEED for cities certification in collaboration with USGBC and Cornell Systems Engineering.

Ongoing/Upcoming Projects

- Creating an Ithaca Green New Deal engagement plan.
- Adopting the Justice50 framework.
- Finalizing City's Climate Action Plan.
- Tracking IRA funding opportunities as disbursement process begins.
- Completing energy audits and electrification roadmaps for the Ithaca City School District schools and buildings within the City using Congressionally Directed Spending.
- In collaboration with Cornell Cooperative Extension and BlocPower, supporting workforce development by paying for individuals to have paid on-the-job training and paid certifications in home energy audits using Congressionally Directed Spending.
- Ongoing collaborations with Cornell students and staff.
 - Cornell graduate students creating a digital twin.
 - Cornell's Ithaca Carbon Neutrality Team looking into potential Distributed Energy Resources and land use permitting.
- Working on grant requirements for NYSEDA's Clean Energy Community project grants.

- Planning and cohosting Earth Day Festival event in coordination with Cornell Cooperative Extension.
- RFQ for consultant to investigate the current state of communication in Ithaca – where do people get their information?
- Applying for Congressionally Directed Spending to make Southside Community Center a resiliency hub and fully electrify the building.
- Community census house-by-house survey of climate justice communities, led by paid local community members.
- Finding a software development fellow.
- Local CCA implementation and public education; we are currently waiting on approval from the Public Service Commission.
- Creating a Resiliency and Adaptation Plan.
- Following NYS Climate Action Council Scoping Plan to ensure compliance and provide advocacy where necessary.
- Pursuing internal carbon pricing structure and assessing financial risks of climate inaction.
- Siting of solar array and battery storage project(s).
- Pursuing implementation of a deconstruction ordinance that considers embodied carbon.
- Pursuing implementation of a building performance standard for existing buildings.
- Explore the feasibility for multiple novel projects to support electric infrastructure, including V2G/V2X, floating solar, and waste-to-hydrogen, among others.



The Climate Reality Project, Finger Lakes Greater Region NY (FLGR-NY) Chapter

The Finger Lakes Chapter of Climate Reality includes inspired climate activists located in the Finger Lakes and Southern Tier regions of Central NY. We are working to unify climate activism over a widespread area, with plans to improve public awareness of the climate emergency and to actively promote the completion of the goals of the Climate Leadership and Community Protection Act (CLCPA) for our region and the Ithaca Green New Deal. The Chapter also aims to reach out and work cooperatively with other active environmental, climate justice, and sustainability groups within the region. At the global level, we support and include working toward the 17 Sustainable Development Goals of the United Nations: <https://sdgs.un.org/goals>. We welcome all trained Climate Reality Leaders living in our region as well as community members who are interested in participating.



Chapter email: fingerlakesgreaterregion.ny@gmail.com

Website: <http://climaterealityfingerlakes.org/>

IGND Scorecard website: <http://igndscorecard.org/>

LinkTree: <https://linktr.ee/ClimateRealityFingerLakes>

Facebook:

<https://www.facebook.com/groups/climaterealityfingerlakes>

Facebook (Book Group):

<https://www.facebook.com/groups/2971646586421809>

Twitter: <https://twitter.com/FlgrNy>

Instagram: <https://www.instagram.com/climaterealityflgr/>

2023 Accomplishments

- The IGND Scorecard Team continues to update and promote it. The Team gave 5 presentations during the year to various groups, introducing the scorecard and the website. The scorecard has been featured in several media pieces. Recently, we have been meeting with students at both Cornell and Ithaca College who are working on projects involving the IGND and the scorecard. We also participate in the BlocPower Community Advisory Board regarding the Electrify Ithaca program.
- This year the Chapter membership increased from 102 to 141 members, of whom 60 are trained Climate Reality Leaders. We continue to grow our following on Facebook (from

- 73 to 94) and Twitter (from 219 to 241).
- In 2023, the Chapter held meetings every month, which includes joint quarterly meetings with the NYS Coalition. The Book Group has remained active and has regular attendees from outside of our Chapter. All meetings are held virtually through Zoom. This year we participated in some live activities such as the End Fossil Fuel marches in Rochester and NYC in September, and the NYS Coalition Retreat at Ashokan in November. Several Chapter members participated in a total of 15 presentation or tabling events about electrification (available Federal, NYS, and utility incentives).
- We continue to work on Federal and NYS Advocacy with the NYS Coalition (all 7 NYS Chapters participating).
 - On the Federal level, we have talked to all six of our Congressional offices about The Farm Bill. We also are working with the Coalition in statewide presentations and tabling, presenting Federal (IRA) and NYS incentives to local communities and individuals for electrification and carbon footprint reduction.
 - For NYS we are supporting bills which will help enable the Scoping Plan to meet the goals of the Climate Act (CLCPA). Efforts included focused attention on legislation related to building electrification, limitation of fossil fuel supply build out, and reduction of fossil fuel subsidies. For the second half of the year, we advocated going into the pre-session and the budget. Topics included reducing the build out of gas infrastructure (NYHEAT), packaging EPR, and fashion sustainability.
- The Chapter expanded its catalog of learning modules, including facilitating several cohorts of TheWeek (<https://www.theweek.ooo>). We completed a CarbonCREW training over a series of Book Group discussions around “2040: A Handbook for the Regeneration” by Damon Gameau (<https://www.carboncrewproject.org>).
- Our Chapter is an Affiliate Local Chapter of Beyond Plastics, so we can amplify our efforts in the areas of plastics waste reduction and EPR legislation. We are also a member of NYRenews.
- We continue to network with other groups within our Finger Lakes/Southern Tier region: TCCPI, Climate Solutions Accelerator, Tompkins Cooperative Extension, Tompkins County EMC, Broome County EMC, Tier Energy Network, Citizens Climate Lobby Finger Lakes, and Sierra Club Atlantic Chapter/Finger Lakes Group, but want to increase our outreach in Syracuse, Corning, and Elmira

Cornell Cooperative Extension Tompkins County Environment Team

Addressing Transportation’s Contributions to Climate Change

Way2Go operates as Tompkins County’s transportation information and learning hub. We connect people with transportation options and facilitate new community solutions. Our vision is for all people and communities to have the transportation they need to thrive.

Way2Go worked with CCE Tompkins’ Energy Team to strengthen community knowledge of electric vehicles (EVs), so that low and moderate income residents can benefit from the transition to EVs once they become affordable.



Among other activities in 2023, Way2Go offered practical EV education through free online Auto Finance Classes in April and July. Our partner, Alternatives Federal Credit Union, discussed the cost and benefits of loans vs leasing, and ways of refinancing predatory car loans while improving credit scores. CCE educators shared comparisons of the operational savings of EVs compared with traditional gas cars. By advertising through partner networks, we attracted 61 registrants and 28 participants – largely people of color whose financial questions suggested low income streams.

Way2Go also organized Car Buyer maintenance classes hosted in the CCE parking lot. These classes were taught by our mechanic partner from Ridge Road Auto, who demonstrated simple techniques to assess used cars before purchase and highlighted the basic differences between gas and electric car models.

Way2Go and CCE Energy program also participated in the Ithaca Festival Parade, showcasing Ithaca BikeShare's electric bicycles, CCE's new Ford Lightening, and individual cars to show the current breadth of available electric vehicles. Through our collaboration with the School Success Transportation Coalition, we also brought an electric TCAT bus and BikeShare bikes to Ithaca High School's Climate Action Fair in order to highlight how transportation choices can impact climate change. Finally, we hosted an "EV Meet and Greet" in Stewart Park, where individual EV owners shared information about the benefits of their vehicles with the public. The event also featured TCAT's electric bus, which turned into a rain shelter and conversation space when the weather turned!

Tompkins County's demand for Electric Vehicles is on the rise, and once the EV market has caught up, our low and moderate income drivers stand to benefit.

Smart Energy Choices - The Southern Tier Clean Energy HUB

Last year, CCE Tompkins became the headquarters of a new Southern Tier Clean Energy Hub, receiving funding and guidance from New York's energy authority, NYSERDA, to move our economy toward a clean energy future.



Cornell Cooperative Extension
Smart Energy Choices — Southern Tier

This hub is branded as **Smart Energy Choices**, with CCE staff in extension offices across Broome, Chemung, Delaware, Schuyler, Tioga, and Tompkins providing free energy advising to residents, nonprofits, places of worship, and small businesses. Staff also provide assistance in accessing tax incentives and energy-related programs, and energy education for students, and workforce development for those with barriers to employment (see below section for more details).

In July of 2023, over 150 clean energy leaders, educators and partners gathered in Ithaca for Just Transition!, an event commemorating the end of the local **Get Your GreenBack Tompkins** (GYGB) program and the launch of Smart Energy Choices. Organizers recognized partners and highlighted lessons and hopes for the future.

Throughout its over-10-year run, GYGB worked with the community to implement projects, including the ReUse Trail and Streets Alive! and development of the Energy Navigators volunteer program.

We're celebrating our first full year as the Regional Clean Energy Hub for the Southern Tier. Here are some highlights of our first year of clean energy work.

The Hub is dedicated to putting clean energy within reach for those struggling with high energy costs, particularly in traditionally underserved communities. We primarily do this through free energy advising to community members.

Through outreach in the community and one-on-one conversations with residents, Community Energy Advisors (CEAs) answer residents' energy-related questions and help them address any energy-related challenges. CEAs connect residents to educational resources covering the many ways to save energy in a home and assistance programs that can help those on limited incomes improve their energy efficiency and transition to renewable forms of energy.

More broadly, the Hub is working to engage Southern Tier residents and business owners in the clean energy sphere. This includes helping people take actions toward energy efficiency, as well as connecting people's thoughts and concerns about energy to state officials. We're glad to see the progress we've been able to make in this effort since our launch.

In its first full year, Smart Energy Choices held 195 events, which included in-person outreach at community gathering places like food pantries and public presentations about energy topics, as well as the Hub's official [launch celebration last summer](#). CEAs reached 5,687 people, advised 1,240 households, and helped people take close to 200 high-impact steps toward improving their home's energy efficiency and/or switching to renewable energy. This is in addition to Hub staff interviewing over

300 people as part of the Hub's Regional Assessment and Barriers Assessment, a survey that helps the program understand the needs and barriers of low- and middle-income residents.

The Hub has also greatly expanded its team and partnerships over the past year. We brought on 12 staff



members, including seven CEAs. CEAs are the heart of our program – they worked to establish partnerships with New York State Electric & Gas (NYSEG), along with a variety of Department of Social Services offices, food banks, affordable housing agencies, and more.

Smart Energy Choices is looking forward to what the next year will bring for our team and the communities we serve. We anticipate even higher impact in our second year as we continue to increase our staff and deepen our experience and partnerships with others.

Smart Energy Choices staff from the first full year of operations. Left to right: Jes Wickham, Leigh Miller, Paul Suarez, Rebecca Spallone, Jack Wright, Aloja Airewele, Eileen Hanrahan, Erica Herman and Karim Beers.

Smart Energy Choices is led by Cornell Cooperative Extension (CCE) Tompkins County, with support from CCE offices of Broome, Chemung, Delaware, Schuyler, and Tioga Counties. It has picked up the environmental education work started by other area organizations, including HeatSmart Tompkins and Get Your GreenBack Tompkins, both of which have now ended.

Contact Smart Energy Choices by visiting its [website](#).

Energy Warriors & Cozy Basements!

CCE Tompkins' **Energy Warriors** program is a paid twelve-week course that offers a crucial first step for individuals with barriers to employment who seek a career in clean energy. In addition to classroom learning, Energy Warriors trainees attend a solar power boot camp and learn how to perform energy assessments.

The **Cozy Basements!** program takes Energy Warriors to the next level by offering crucial hands-on experience for trainees and a direct benefit to community members. Under the supervision of Bloc Power, paid trainees insulate residential basement rim joists – a low-cost, high-impact weatherization service that keeps homes warmer and reduces energy usage.

By the end of 2023, Cozy Basements! Trainees insulated rim joists of over 30 homes, with a focus on low- and moderate income households in the County. All materials are paid for, so the homeowners get the upgrades for free. As of 2024, one of the trainees is now fully employed in the clean energy workforce (staff at CCE Tompkins!) and a similar program has started at New Roots Charter School, offering an environmental literacy education to local high school students. See <https://ccetompkins.org/energy/cozy-basements>.

ENERGY WARRIORS



Green Career Pathways

Energy & Climate Change Team

Clean Energy Communities and Climate Smart Communities

In 2023, we had some turnover, with a couple of our Clean Energy Communities Coordinators, Gina Cassidy and Todd Knobbe, moving on to other opportunities, and being replaced by Chris Skawski and Michael Brown. Together with Kristina Zill, they continued to support communities throughout the Southern Tier 8-county region to take on “high-impact actions” that save them money and make them more resilient while reducing greenhouse gas emissions. In all, there were 38 additional Active

Communities in 2023 (bringing the total to 125), 8 additional Designated Communities (total now at 71), and 111 additional Completed High-Impact Actions (total now at 516), bringing more than \$500,000 in grant funds to the region See <https://southerntiercec.org>.

In the Climate Smart Communities program, which we previously coordinated in Tompkins and Chenango Counties, and with the hire of Jerry Sheng, we moved over to covering Tioga County instead of Chenango. Jerry worked with municipalities across both counties to implement Climate Smart actions and apply for state funding for resiliency measures. He completed a Natural Resources Inventory for the Village of Lansing begun by the previous coordinator, led a regional transportation study, and began work on two Climate Action Plans, one for Newfield and one for the Town of Dryden that will be completed in early 2024.

Ag Energy

We hired a new coordinator for the Ag Energy NY Program, Gabriel Gurley. He created resources for farmers across NY State to reduce the energy use of their farm operations. He also continued working closely with about a dozen CCE offices across the state who are formally part of the program, providing them with a paid training and resources, including fact sheets and a web site (<https://agenergyny.org>) they could then use with farmers in their communities.

NYSEG Lansing Non-Pipes Alternatives Program

We continued our education and outreach component for NYSEG's Non-Pipes Alternatives (NPA) program. As the name suggests, the NPA is an effort to reduce gas use in the Lansing moratorium area in order to ensure adequate gas pressure even at moments of highest demand without the traditional approach of building larger gas infrastructure such as a larger pipeline feeding the area. The education and outreach effort supports other projects in the NPA portfolio, including the installation of a geothermal heat pump system at the Cornell Childcare Center, a district geothermal system connecting about a dozen homes, a community-wide heat pump and weatherization campaign that is offering additional incentives in and around this geographic area (in addition to those available to all NYS home- and business owners), and energy upgrades and installation of new higher-efficiency gas boilers at the Lansing Central School District. If successful, this program will divert millions of dollars previously approved for a larger pipeline and show that reducing gas use is an effective way to increase reliability, along with the myriad other benefits. See <https://ccetompkins.org/npa>.

Ithaca Green New Deal

We continued our collaboration with the City of Ithaca to further design and implement the Ithaca Green New Deal. Continuing to focus on the Southside community, Anne Rhodes worked with local residents, Southside Community Center staff and volunteers, Ithaca Catholic Worker, and others to create a community-based program that helped unite the community around the benefits of widespread electrification of buildings, workforce development opportunities, and the deep history of that community.

LMI EV Program

Growing out of EV Tompkins, Holly Payne wrapped up our collaboration with Way2Go, Ithaca Carshare, Ridge Road Imports, and Clean Communities CNY, under a program led by Energetics, to identify and work to address the barriers to the wider adoption of EVs, including growing the local used EV market, working with local lenders to provide more accessible financing options, and providing education and outreach to underserved populations (with a focus on low- and moderate income (LMI) community members). She continued to offer resources to the community, put on first-time car buyer and basic mechanics classes that included strong EV components, and organized another popular EV car show.



Other Programs and Activities:

- **Ag & Solar:** Guillermo Metz continued working with CCE educators across the state to collect and develop resources addressing the major issues around large-scale solar development, particularly as it impacts active agricultural land. He also secured a grant to hire a full-time educator to

work on this issue across the state, focusing on the Ag sector, as part of the Ag Energy NY Program, which will start in 2024 and run for three years.

- **Working with Congregations:** Anne Rhodes ramped up her work with several congregations across the county, including Tikkun V'Or and the Ithaca Unitarian Church, to engage congregants in climate-related work. With her guidance, working groups have taken on a host of activities that include both climate mitigation and adaptation, along with climate justice work. For example, at Tikkun V'Or, four groups formed, with one focused on the 10 acres the temple sits on, to explore how best to honor the original inhabitants, the Gayogohó:nq? and how to honor native species, as well as how to collaborate with local Black and Brown communities to share food production. Another group there is focused on contributing to a local carbon offset fund to provide funds for local low-income people to upgrade their homes for energy efficiency and transition off fossil gas.
- **Induction Cooking:** Guillermo also continued working with the CCE-Tompkins Nutrition Team staff and a volunteer chef, Rupert Spies, to introduce people to induction cooking by using portable single-burner induction cooktops at community events, like a celebration at Southside Community Center and Ithaca High School's Earth Day Festival. Using these portable units in public settings introduced people to the technology through a relatively inexpensive, easy-to-use appliance.
- **Radon:** Guillermo continued to provide information and resources to the community on the dangers of and mediation strategies for radon.
- CCE-Tompkins Energy & Climate Change Team staff continued to populate and maintain sections on the **CCE-Tompkins web site** covering topics such as Heat Pumps, Weatherization and Building Efficiency, Solar and other Renewable Energy Sources, Electric Vehicles, Induction Cooking, Green Building, Heating with Wood, and Radon.
- Representing CCETC's energy programs, Guillermo is a member of the Ithaca 2030 District Advisory Board and the Tompkins County Climate and Sustainable Energy Advisory Board.

Cornell University

- In 2023, Cornell University maintained a Platinum Rating from STARS, the highest rating possible and one that only 11 institutions worldwide have achieved.
- 100% of campus buildings are cared for with Green Cleaning and Energy Conservation programs.
- Hosts over 40 student sustainability clubs.
- Offers over 54 sustainability-focused majors and minors.
- 89% of all academic departments offer sustainability courses, including over 771 classes for both graduates and undergraduates.
- 51% of total waste is composted annually.
- 660 acres of natural areas are managed for biodiversity.
- 20% of campus electricity needs are met by renewable energy.
- 94% of construction materials are reused or recycled.
- 100% of entering students have the opportunity to participate in sustainability-focused orientation activities.
- 52% reduction in Scope 1 & 2 GHG emissions from our baseline in 2005.
- 100% of newly constructed or renovated buildings receive LEED certifications.
- >1,000 acres of grounds managed organically or in accordance with an Integrated Pest Management Program (IPM).
 - 296 acres of grounds managed organically.
 - 712 acres of grounds managed in accordance with an IPM program.
- 70% of materials were diverted from landfill by recycling, composting, donating, or re-selling.
- 37% reduction in potable water use per weighted campus user since 2005.
- 7 Facility Management fleet vehicles are Electric Vehicles.



[Biotechnology Building Retrofit Saves \\$670K in Annual Energy](#)

After multiple efficiency upgrades since 2004, including retrofitting four rooftop exhaust stacks for heat recovery, the Biotechnology Building now saves nearly \$670,000 annually in energy costs compared to 2004.

[Lake Source Cooling's return line to cool the Wilson Laboratory](#)

Wilson Laboratory is home to the Cornell High Energy Synchrotron Source. The return line carries chilled water back to the production plant after it has served the rest of east campus buildings. This novel solution addresses the unique needs of Wilson Lab, saves 4 million gallons of water usage, and maximizes the thermal capacity of Lake Source Cooling without requiring any additional flow from the plant.

[Agrivoltaics Research Program at Cornell University](#)

On December 8th, Governor Hochul signed a bill establishing an Agrivoltaics Research Program at Cornell University. Agrivoltaics is the use of land for both agriculture and solar energy generation.

[Cornell Dining Becoming More Sustainable](#)

Cornell's dining program was ranked second in the country by students for having the best food, and has at the same time [become more sustainable](#) – doubling purchases of Marine Stewardship Council (MSC) certified sustainable seafood and committing to 45 percent plant-based retail entrée offerings by the end of 2024, and 50 percent by the end of 2027.

[Reducing single-use disposable container use in Cornell Dining](#)

Cornell Dining is partnering with Fill it Forward to offer reusable takeout containers at nine dining locations. Containers are available for purchase for \$5 at each of these dining locations. Fill it up, enjoy your meal, and return it for cleaning and sanitizing.

[Just in Time for the Winter Solstice, North Campus Solar Panels Energize](#)

Three more North Campus residential buildings turned on their rooftop solar panels and now help the campus generate more electricity using renewables.

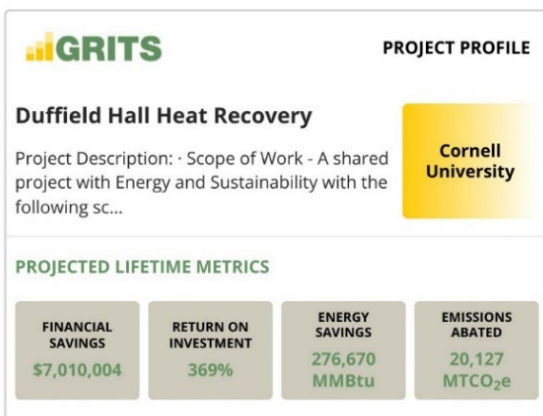
[Advancing Wildlife Health](#)

[Cornell received a \\$35 million gift](#) that will endow and name the [Cornell K. Lisa Yang Center for Wildlife Health](#) to address key challenges at the intersection of wildlife health, domestic animal health, human health and livelihoods, and the environment that supports all life on Earth.

[Energy Conservation Initiatives](#)

As of the early 2020s, the ECI program at Cornell had saved the University over \$75 million dollars and

avoided over 320,000 MTCO₂e of greenhouse gas emissions that contribute to climate change. Check out our energy conservation work on [Cornell's GRITS public dashboard](#).



Project highlight: [Duffield Hall Heat Recovery](#) - An energy study of this energy intensive laboratory building dedicated to nano-science found that many space controls were not functioning properly. New space controllers, network wiring, and logic upgrades now allow full functionality of control logic that varies laboratory and general space airflows and temperature setpoints based on occupancy.

Downtown Ithaca Alliance

- The Ithaca Downtown Conference Center on W. Green Street, slated to open this spring, is the first all-electric conference center in the U.S.
- Solar trash compactors along The Commons continue to help to reduce the carbon footprint. Powered by the sun, these eco-friendly compactors operate in every type of weather — snow, rain, or shine.
- At least 13 of our businesses on The Commons — Alley Cat Cafe, Thai Basil, Taste of Thai, Casablanca Pizzeria, The Greenhouse Cafe and Cocktail Lounge, Lou's Street Food, Sangam Indian Curry, Capital Corner Restaurant, Gorgers, Jimmy John's, and Mercato's — support Zero Waste Tompkins' Ithaca Reduces program. These restaurants and eateries support the program by asking customers to bring their own containers and cups.
- The DIA, in collaboration with the Center for Community Center for Transportation and Tompkins Consolidated Area Transit (TCAT), is currently operating a Transportation Demand Management (TDM) program called GO ITHACA. GO aims at helping employees and residents in the urban core forgo their single-occupancy vehicles and instead use more efficient modes of transportation, such as walking, biking, and carpooling.
- Downtown Ithaca is an important green retail showcase with at least 12 independent, locally-owned stores that specialize in reused and recycled products. Such stores include SewGreen, Pastimes Antiques, Trader Ks, Autumn Leaves Used Books, and Home Green Home.
- Press Bay Alley, two blocks southwest of the Ithaca Commons, offered a Food Hub where people can pick up fresh produce, baked goods, and other items. The Alley also serves as a pickup spot for the Full Plate Farm Collective CSA (Community Supported Agriculture).
- Downtown Ithaca is the regional transit hub for Tompkins Consolidated Area Transit (TCAT), which its industry peers recently recognized as being the best transit system of its size in North America.
- Additional art bike racks installed around the urban core, thanks to a grant from a local foundation, provide ample amounts of bike parking in the urban core, which decreases dependency on automobiles and increases biking and access to public transit.
- The DIA has implemented composting and recycling systems for its major downtown events, such as the Apple Harvest Festival, the Summer Concert Series, Chowder Cook-Off, and Chili Cook-Off, which over 100,000 locals and tourists attend. Local service organizations like the Master Composters from Cornell Cooperative Extension have helped to oversee these composting stations.
- The DIA also offers and encourages the use of reusable cups during the Summer Concert Series and offers reusable spoons and encourages attendees to bring their own reusable spoons for its Chowder Cook-Off and Chili Cook-Off.
- City Centre includes many green features such as energy-efficient windows and lighting and classic sustainable appliances like low-flow toilets. City Centre is also eliminating the need for venting to accompany clothes dryers, outfitted with heat pumps.
- Downtown Ithaca is home to Coltivare, a farm-to-table restaurant and bar as well as a major culinary education facility. Coltivare, an initiative of Tompkins Cortland Community College, offers a unique hands-on experience alongside working professionals for students studying sustainable



food systems and entrepreneurship. Although the restaurant is temporarily closed, it will re-open soon. In the meantime Coltivare continues to operate its event space,

- Press Bay Court on W. Street offers a free-to-use community bike repair station. By providing tools for people to make simple bike repairs, we're making it safer for people to bike around the community.
- Harolds Square on the Commons is an energy-efficient building aligned with the values of the local community and offers apartments that are more efficient, cost-effective, and comfortable. Designed per NYSERDA and ENERGY STAR® standards, the building uses at least 35% less energy than a similar conventionally built building.
- Downtown Ithaca is home to the Center for Community Transportation headquarters, which operates Ithaca Carshare, a non-profit car-sharing service with a growing fleet of fuel-efficient vehicles shared by over 1,500 members, and Ithaca Bikeshare, Ithaca's first non-profit, community-owned and operated bikeshare.

EcoVillage at Ithaca, Inc.

- EVI, Inc. continued to pursue its mission in 2023 to steward the 140 acres outside the village area for the preservation and conservation of open space, development of sustainable agricultural practices on this land, and promotion of sustainable high-density community living.
- Throughout the year, the EVI, Inc. board worked closely with the four organic farms located on the nonprofit's land: West Haven Farm, Groundswell Center for Local Food and Farming incubator farm, Kestrel Perch, and Three Story Farm.
- With the closing of the Kestrel Perch operation, the board initiated a process that concluded in early 2023 with the decision to carry out an interim transition involving West Haven Farm and New Roots Charter School.
- The board discussed developing general policies around management of invasives and replanting natives in their place on EVI land and discussed needed improvements to unpaved access roads.
- With the sale of property to two EVI residents to purchase land from EVI, Inc. and construct clustered affordable housing along Westhaven Rd. to accommodate several Burmese refugee families who grow and harvest crops at the Groundswell incubator farm, the board put in place a process for investing the funds conservatively so that they would generate interest to support projects that the board may want to undertake in the future.



EMPEQ

- America needs to decarbonize over 7,000 buildings every day if we are to reach our 2050 climate goals and the first step in each of these projects is to provide building owners actionable insight on existing equipment. EMPEQ uses proprietary computer vision technology to put unique power in the hands of users. One photograph from a handheld device instantly identifies equipment/parts, digitizes specifications, and gleans insights like remaining useful life, cost/energy saving alternatives, and many others. Our customers utilize the technology to reduce the time spent on fieldwork associated with energy efficient retrofit reports and proposals by 50-80%.
- 2023 was EMPEQ's most successful year to date – specifically, the company experienced 550% growth in its software-as-a-service revenues.



- EMPEQ added [James Crouch](#) as new Chief Technology Officer in September. Crouch has personally built and/or led development on more than 200 applications during a 20-year career in Information Technology (IT) and Artificial Intelligence (AI). Notably, one of his apps was so well received that he was personally invited to share the stage with Steve Jobs to demo the product at Apple's Worldwide Developers Conference in 2008; to be clear, this means that one of James' apps was chosen by one of the greatest icons in the history of technology to be featured during the crucial launch of Apple's App Store.
- [EMPEQ was awarded a Small Business Innovation Research \(SBIR\) Phase I](#) contract by the U.S. Air Force to explore maintenance use cases for its Fast Site Survey product.
- EMPEQ was awarded a \$1.2 million [Direct to Phase II SBIR](#) (D2P2 SBIR) contract from the U.S. Air Force; note that well-vetted D2P2 SBIR applications have just a 5% success rate and this speaks to just how compelling EMPEQ's technology was to the Air Force.
- [EMPEQ won first prize at the 2023 HUSTLE Defense Accelerator](#) hosted by Griffiss Institute and the Air Force Research Lab.
- CEO Herbert Dwyer was invited by the Association of Energy Engineers (AEE) to provide the keynote address at their annual "AEE World" trade show; this meant speaking right [before former Vice President Al Gore](#).
- [EMPEQ's founders](#) were featured in an industry publication provided by AEE.
- CEO Herbert Dwyer had an opinion piece [published in the International Journal of Energy Management](#).
- The company raised >\$150,000 in a convertible note round and an additional \$175,000 on a SAFE in 2023.

Finger Lakes Land Trust

During 2023, Finger Lakes Land Trust (FLLT) achieved the major milestone of permanently preserving over 30,000 acres, including more than 5 miles of lakeshore, 19,800 acres of forest, 45 nature preserves, and 53 miles of trails. The Land Trust also accomplished the following in the greater Ithaca/Tompkins County area last year:

- Purchased 7.5 acres located off Salmon Creek Road in the town of Lansing. The parcel will be added to the FLLT's adjacent Salmon Creek Bird Sanctuary, safeguarding wildlife habitat and water quality in nearby Salmon Creek, a tributary to Cayuga Lake.
- Created a unique partnership between the Finger Lakes Land Trust (FLLT), Cornell Botanic Gardens, and Tompkins County resulting in the addition of 81 acres of wetlands and mixed hardwood forest to the Fischer Old-Growth Forest Natural Area.
- Purchased 24 acres as an addition to its new Sims-Jennings Preserve at Cayuga Cliffs in the Town of Lansing. This addition allows the organization to prepare the 224-acre preserve for public access.
- Acquired 110 acres of woodlands and meadows in the Town of Lansing. This acquisition includes the Cedar View Golf Course, which was operated by the Larsen family for more than 50 years before it ceased operation in 2021. The property is located just north of the Bell Station parcel which the FLLT acquired in 2022.
- In partnership with the New York State Department of Environmental Conservation (DEC), and the Wetland Trust, Inc. (TWT), permanently protected 43 acres just south of Ithaca in the Town of Newfield. Protection of this property helps prevent development that would disrupt critical buffers along the inlet. The project was funded in part through the state's Water Quality Improvement Project (WQIP).

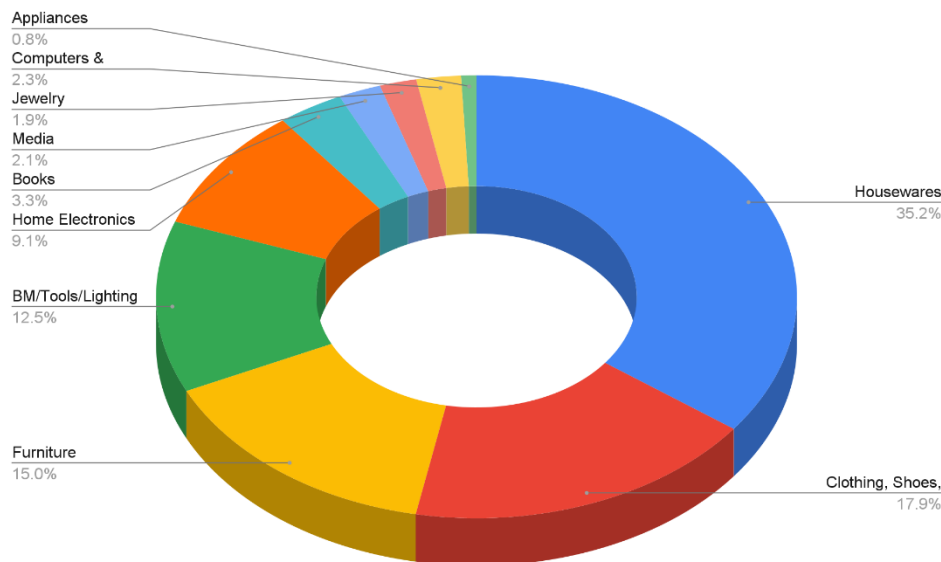


- Acquired eleven acres with more than 3,100 feet of frontage along Fall Creek in the Town of Dryden. The parcel, together with the FLLT's adjacent Etna Nature Preserve, will safeguard habitat for fish and wildlife as well as water quality within Fall Creek.
- Dedicated its 123-acre Tapan Mitra Preserve in the Town of Ithaca after completing important public access improvements.
- Expanded its 537-acre Lindsay-Parsons Biodiversity Preserve with the recent purchase of 8.5 acres in West Danby.
- Permanently protected 51 acres in Tompkins County with a conservation easement donated by Ellen Harrison, whose property is located on Ellis Hollow Road in the town of Caroline. The property is in the headwaters of Six Mile Creek, a public drinking water source for the city of Ithaca.

Finger Lakes ReUse

In 2023, Finger Lakes ReUse (ReUse) continued to grow, driven by increased donation drop-offs and community engagement. As a result, our impact grew as well. In 2023 ReUse employed 77 living-wage employees (63 full-time equivalent), and we worked with 19 apprentices through our ReSET job training program, helping 8 find permanent employment. Alongside staff & apprentices, 2,100 volunteers logged over 7,500 hours to help support our mission to enhance community, economy and environment through reuse activities.

The organization exceeded \$2.4 million in sales (both ReUse Centers combined). A breakdown of sales by department is below:



Through ReMAP (ReUse Materials Access Program), ReUse partnered with over 30 local human service organizations to provide 832 households with more than \$190,000 in free materials. This program has become a vital resource for those in need, and that is demonstrated by the 42% increase compared to the previous year.

In 2023, Finger Lakes ReUse:

- Received **49,407** Material donation drop-offs from the community.
- Kept **772,105** items in local use, and out of the landfill.
- Welcomed the Community Quilting Center into our ReUse Mega Center Community Space, offering quilting materials and classes to the public free of charge.

- Voted as Best Thrift Store in the Ithaca Times Best of Ithaca 2023 awards
- Partnered with over **30 local human service agencies** to provide **832 households in need with \$190,664.45** in gift card value through the ReUse Materials Access Program (ReMAP). ReUse also provided **251 families a free delivery** with their referral to this program.
- Provided **32 nonprofits** and community organizations with free materials for community projects and initiatives.
- Through the ReUse ReSET (Skills and Employment) job training program, we worked with **19 apprentices** and successfully connected **8 to permanent**, unsubsidized employment.
- Provided **74 employees** with a living wage.
- Over **2,100 volunteers & 150 groups** logged more than **7,500 hours** by helping to support both of our Community ReUse Centers last year.
- Worked with **32 youth workers**, through a partnership with YES & SYEP.
- A billboard on Rt. 13, highlighting both the Ithaca ReUse Center and the ReUse Mega Center was completed and ran for 6 months.



Historic Ithaca and Significant Elements



[Historic Ithaca and Significant Elements](#) are leaders locally and regionally to link preservation with sustainability. Founded in 1966, Historic Ithaca stood together with the citizens of Tompkins County to protect the built environment and to promote those efforts through education, advocacy, and action. In 1991, Significant Elements Architectural Salvage retail store opened and was our answer to keeping items out of the landfill and reusing those items via a circular economy. In 2023, **more**

than 10,000 visitors came to SE and 526 people joined us for HI tours and events. In addition to our annual Walk & Talk series and Ithaca City Cemetery Clean-Up we hosted other fun and educational events with [Wharton Studio Museum](#), [Friends of Stewart Park](#), and the [Erie Canalway National Heritage Corridor Commission](#). Work Preserve, our job training program, began 14 years ago for young adults who often have barriers to employment. They build skills related to green jobs and trades, restoration, preservation, sustainability, retail and customer service. There have been multiple successes in 2023 including:

- Both buildings at Historic Ithaca and Significant Elements now have heating and cooling through new air source heat pumps and are off fossil fuel for good, as one of the first ten buildings in the [City of Ithaca and BlocPower's Electrify Ithaca program](#)
- Utilized NYSEG's [NYS Clean Heat Rebate Program](#) for commercial properties which installs heat pumps in gas-constrained areas, also known as "the Gas Kicker" program
- With the City of Ithaca's Department of Planning and Development's Preservation Planner, Bryan McCracken, designed guidelines for air source heat pumps that will soon be available for installations in historic districts. The work was completed by Cornell graduate student intern [Henny Angkasa](#) who we commend on a job well done
- The [CROWD](#) (Circularity, Reuse, Zero Waste Development) network continues to be strong with weekly meetings about the circular economy, reuse, and deconstruction. The network now includes local and state government agencies, Cornell labs such as the Just Places and Circular Construction Labs, students and professors, multiple municipalities, and the public interested in climate action affecting change through our built environment.

- As part of CR0WD, HI hosted a full day workshop at NYSAR3 Conference in November to gauge the priorities and work needed to effect policies at the local and statewide levels. Many other workshops such as at Cornell's Atkinson Center were conducted locally, regionally, and nationally to spread the word.
- Legislation on deconstruction will be proposed in New York State soon, with work being done in local municipalities – stay tuned in 2024
- Locally, we spoke to the Town of Enfield and the Village of Trumansburg about efforts in deconstruction, reuse, and preservation
- Preserving buildings through advocacy efforts such as the [“Red House” at 408 North Tioga Street](#) in Ithaca were successful. The building was sold in Fall 2023 and was not demolished for a parking lot, as originally intended
- Sixteen participants completed our Work Preserve Program at Significant Elements in 2023
- At the end of 2023, Work Preserve received a grant from the Park Foundation to foster and recruit community members who wish to be part of the green job economy. The project is expected to fully launch in spring 2024;
- Also, at the end of 2023, Historic Ithaca aided the Town of Caroline in their successful application for a New York State Regional Economic Development grant for [restoration of the Old Caroline Town Hall](#). Work will begin in 2024;
- Historic Ithaca's staff joined many of the Ithaca and Tompkins County “sustainability” initiatives and have joined Boards and partnerships to work together on important planning and goals such as [BlocPower's](#) Community Advisory Board, Career Pathways Project, Youth Employment Resource Team, City of Ithaca's Sustainable Justice Commission, Tompkins County Planning Advisory Board, Tompkins County Strategic Tourism Board, and the Erie Canalway Commission. We are also part of the Ithaca District 2030 and Susan Holland serves on the Advisory Board.
- The regularly updated [Energy Toolkit](#) remains one of the most heavily trafficked pages on Historic Ithaca's website with over 300 views in 2023. The toolkit serves as a free service to anyone who owns a property and is looking for information on energy efficiency.

HOLT Architects



HOLT Architects is a firm that specializes in the design of Healthcare, Higher Education, and Multifamily Housing projects throughout New York State. As architects and designers that have a passion for sustainable and high-performance design, HOLT is in a great position to promote and implement the construction of sustainable structures. This year we continue to educate and promote sustainable design with all of our clients, improve and refine the construction details that we use on our projects, and improve the performance of our own facility and the behavior of our team. We also continue to develop the knowledge and skills of our staff to better

serve all the above through conferences and in-house training.

- 2023 Projects highlights, Certifications, and Awards:
 - Sciarra Walker & Co., LLP to design a new building for their offices in the village of Lansing. This new facility is expected to be Net Zero by virtue of deriving heating and cooling through geothermal heat exchange.
 - 240,000 sf mixed-use development along the Cayuga Lake Inlet, **City Harbor**, being designed by HOLT Architects, incorporates heating and cooling systems powered by an advanced effluent-based system.





- Cayuga Medica Center has been designed to meet LEED v4.1 and WELL v2 certification with the proposed downtown Medical Office Building. The project will also meet the NY Stretch Energy Code as well as the Ithaca's Energy Code Supplement and with NYSERDA's New Construction Program.
- At Hudson Headwaters we improved the performance of the building to meet the stretch energy code requirements
- In 2023, HOLT continued championing and participating in the efforts of TCCPI and

its flagship project, the Ithaca 2030 District.

- 2023 improvements to standard practice construction details:
 - Conducted an annual review of all HOLT's standardized construction details to ensure, at a minimum, surpassing the ever-more restrictive energy efficiency codes, with particular emphasis on preventing "thermal bridging," the process by which a material that has a high heat conductivity is in contact with both the indoor and exterior environments, resulting in drastic decreases in energy efficiency.
 - In 2023 we improved the thermal performance of our standard exterior wall systems with the use of insulation bricks to transition from continuous insulation in the wall system to the foundation insulation system.
- Performance of our building and behavior of our team in 2023:
 - We continue to operate and monitor our LEED Gold facility at 619 West State Street.
 - We continue to investigate methodologies for better understanding the energy needs of our 619 West State Street offices as well as potential actions for lowering the overall energy use.
 - As an all-electric building, our on-site PV system continues to provide the majority of energy that we use in our building, in 2023 offsetting nearly 90% of our total annual electricity.
 - In 2022 we certified the facility as a WELL Building, a certification that requires us to maintain operational requirements in 2023 such as air filters.
- 2023 Staff training and continuing education:
 - HOLT hosted over 15 continuing education lunch presentations related to sustainability and building performance for our staff.
 - Two HOLT designers began studying for their LEED Accreditation exam (Lindsey and Kyrie).

Ithaca 2030 District

- The District as a whole in 2023 reduced its energy consumption by 37% from the baseline and used 46% less water compared to the baseline, a significant improvement over the 27% in energy savings and 40% in gallons avoided in 2022. This is the first time that we've met both the energy and water targets for 2025.
- By the end of 2023, there were 30 property members, 43 buildings, and 583,269 square feet that belonged to the District, compared to 532,097 square feet in 2022
- We continued to collect monthly energy data and quarterly water data for the property owners, which we upload to Portfolio Manager and then migrate to interactive, online building performance dashboards. We carried out reviews of the individual dashboards on Zoom with the owners or designated building managers to make sure that they understood how to operate the dashboards and to see if they had any questions. The dashboards track progress regarding energy and water consumption at both the individual building and district levels.



- We carried out our fifth annual commuter transportation survey of member buildings. Commuter emissions remained an area of concern in 2023. There was, however, an improvement: 1706 kg CO₂e/commuter/year in 2021 to 1403 in 2023, a 17.7% reduction and significantly below the 2019 emissions level of 1,603. We still remain above the 2020 target of 1200, but at least now we're headed in the right direction. The full 2023 annual progress report can be found [here](#).
- We held monthly Advisory Board meetings and four District Partner meetings on Zoom as well as published four issues of the e-newsletter. The District Partner meetings bring together the property owners and other stakeholders to discuss issues of mutual concern and provide updates on the progress of the 2030 District.
- Topics discussed at the quarterly District Partner meetings included new technology for building audits (Herb Dwyer), the Finger Lakes Climate Fund (Holly Hutchinson), the Tompkins County Business Energy Advisors program (Hailley Delisle), a thermostat-like device that deploys automatic reduction technology (Brian Cregan and Oliver Hynes), and a proposed city building performance standard for existing buildings (undergraduate Cornell engineering students) .
- The executive director attended monthly meetings of the directors in the network to discuss issues of mutual interest, and he participated in the annual 2030 Districts Network Summit.

Ithaca College



AASHE Stars Gold Rating - Ithaca College (IC) continues to hold a **Gold Rating** from the Sustainability Tracking, Assessment & Rating System (STARS) administered by the Association for the Advancement of Sustainability in Higher Education (AASHE). AASHE is a member-driven organization with a mission to empower higher education to lead the sustainability transformation. STARS is AASHE's reporting framework for universities and colleges to track their sustainability performance. IC scored a total of 67.16 total points out of 100 possible points. IC completes this report every three years which includes hundreds of metrics from academics to operations to community outreach. You can review IC's latest full STARS report [here](#).

- **Top Green College** - IC was again named as one of the nation's most environmentally responsible colleges by the Princeton Review based on the AASHE Stars Rating and student surveys.
- **Green Power Partner** – In 2023, IC was recognized by EPA as being a 6-year member of the Green Power Partnership for its continued commitment to buying completely renewable electricity.
- **Geneva Solar Farm** - IC celebrated the seven-year anniversary in 2023 of its 2.9 MW solar farm in Geneva, New York which has to date has produced 22.9 GWh of electricity for the College.
- **Lansing Community Solar** – IC continues to subscribe to energy produced at a Nexamp Lansing community solar farm for a portion of our College Circle Apartments electric needs.
- **Electric Vehicle Charging** – IC continued operating two, dual port EV charging stations on campus that are free and open to the public – they have provided about 20 MWh of usage each year to over 30 unique users per month. IC further purchased its first EV maintenance van and is planning an expansion of the campus charging infrastructure in 2024.
- **Sustainable Service Learning** – Received Americorps VISTA funding to hire an Inclusive Sustainability Coordinator to start in June 2024.
- **Eco Reps** – Student Eco Reps continued to act as peer-to-peer educators by engaging student, faculty, and staff in campus-wide sustainability dialogue. Eco repos continued to support composting in the College Circle Apartments in 2023 and expanded that work the Garden Apartments. The group further increased circulation and improved monthly “Installments,” a quick read posted in campus restrooms that highlight global sustainability issues.
- **Academic Outreach** – The Office of Energy Management & Sustainability (OEMS) developed and presented content for the Ithaca College Seminar Series (ICSM) lectures, Choices for a Sustainable Future. OEMS further presented monthly Student Leadership Initiative (SLI) discussions geared at engaging students in Sustainable Transportation and developed content and presented as guest-lecturer for over a dozen courses.

- **New Student Engagement** – OEMS participated in a range of orientation and new student outreach events including the Jumpstart Green Tour that introduces new students to a range of local sustainability resources.
- **South Hill Forest Products** - Continued the successful South Hill Forest Products, a student-run business dedicated to providing high quality, all-natural, non-timber forest products to the community, using the natural resources within the Ithaca College Natural Lands.
- **Eco Mobile** – OEMS and certified student drivers continued to utilize the electric/solar vehicle, informally known as the Eco Mobile or Eco Bug, for major public events and Eco Reps events including its weekly composting college. The friendly rig, which has quickly become a campus favorite, is now approaching 1,100 miles.
- **2023 Sustainability Week** – Ithaca College was proud to restart its “sustainability week” in 2023. The weeklong event featured a panel with local sustainability professionals, a student sustainability colloquium, keynote speeches from Daphne Frias and Arielle King, a sustainability fair, and pop up pub.



Ithaca Neighborhood Housing Services



INHS strives for a holistic and sustainability-driven approach to all of its activities, from repair and homeownership programs to real estate development and property management. In 2023, construction of Village Grove, the recipient of a NYSEDA Building of Excellence Award for its passive house design and incorporation of geothermal heat and off-site community solar, broke ground in Trumansburg. Also in Trumansburg, eight new all-electric, high-efficiency, Energy Star manufactured homes were installed at Compass Manufactured Housing Community. These new homes, in addition to important improvements to storm water, water, sewer, and electrical infrastructure, pave the way for increased quality of life for residents, including enabling further electrification efforts throughout the community.

In addition to development work, INHS leveraged more than \$725,000 to conduct or finance critical home improvements for 130 households across its seven-county service area, bringing efficiency and other home improvements to more than 215 people. A core component of the INHS mission, these repairs and upgrades are a critical path to increased home efficiency and a more healthy and comfortable home environment for the people they serve.

INHS also prioritizes environmental justice and climate adaptation for underserved communities in our strategic planning by prioritizing nodal development, visitability, and accessibility; supporting access to a variety of support services for residents; and by advertising to, and serving, income constrained and marginalized communities. These efforts ensure access to multi-modal transportation and micro mobility options, mitigate the negative local and global impacts of climate change, and facilitate climate adaptation for all of INHS's residents and clients.



Solar Array at Glen Lakes Apartments

INHS is a national leader in real estate development incorporating green building and is one of the developers that helped create the LEED for Homes building standards, the leading national residential green standard. INHS develops housing that consistently exceeds industry green building standards, including 85 units that are certified as LEED Platinum, 93 as LEED Gold, and 77 as LEED Silver. The remainder of INHS-developed housing units are built to meet or exceed, a variety of other green-building certification requirements. Beginning in 2024, all new INHS developments will be all-electric and the majority will include electric vehicle charging stations. INHS's Community Housing

Trust (CHT) Program, has to date built or rehabilitated 70 affordable for-sale homes that meet or exceed the LEED Gold standard.

Ithaca-Tompkins County Transportation Council



Here are some efforts where the [ITCTC](#) played an important role. As always, the ITCTC works in collaboration with municipal, county, and state partners so in all initiatives below there were multiple parties involved in search of successful outcomes.

- Safe Streets and Roads for All (SS4A) – Bipartisan Infrastructure Law (BIL) grant. Federal funding to develop a Safety Action Plan project across 10 municipalities, Tompkins County, and NYSDOT. \$600,000 federal award plus \$150,000 local match = \$750,000 total project funding available. City of Ithaca is lead applicant.
- The City of Ithaca was awarded \$463,855 in Carbon Reduction Program under the Bipartisan Infrastructure Legislation. The City will use the funds to analyze its road network with the goal of developing an Active Transportation Network plan that will be implemented over time. The goal is to have a safe, convenient network of enhanced routes for bicycling, walking and other personal mobility modes.
- The Priority Trails Strategy, a plan for countywide multiuse trails, was updated in 2023-
<https://www.tompkinscountyny.gov/itctc/links#trails>.
- Various active transportation projects in the ITCTC's Transportation Improvement Plan have been completed or continue to advance to construction:
 - City of Ithaca, Black Diamond Trail Bridge over Flood Control Channel (near completion)
 - Town of Dryden, Dryden Rail Trail bridge over Route 13
 - Vill. Cayuga Heights, safe walking path to the IHS/Boynton Middle School campus.
- The ITCTC agreed to fund planning and scoping for:
 - Safety evaluation/design for Floral Ave. in the City of Ithaca (completed)
 - Extending the Black Diamond Trail from its current terminus at Taughannock Falls State Park to the Village of Trumansburg (ongoing)

Other significant transportation activity in 2023:

- Ithaca Carshare had to stop operations in May due to lack of access to insurance. With much community support, NY State passed legislation to allow non-profits in NY to have expanded access to vehicle insurance. This was a critical action, needed to allow Ithaca Carshare to re-start operations – expected in March/April 2024.
- TCAT served as a lead applicant in a successful grant application to advance different transportation electrification strategies – much work was done in 2023 to set up the project and begin implementation.
- Two projects from the Village of Dryden and Town of Ithaca were submitted for Transportation Alternative Program funding.

Looking ahead 2024:

- Implementation of different grants listed above.
- Bridge construction over Rt.13 for the Dryden Rail Trail.
- Update of the 20-year Long-Range Transportation Plan -
<https://www.tompkinscountyny.gov/itctc/lrtupdate>
- Begin process of updating the 5-year Transportation Improvement Program of federally funded surface transportation projects.
- Complete update of county bike map.
- Return of Ithaca Carshare service.
- Continued growth of Ithaca Bikeshare service.

Local First Ithaca

- Produced our 13th Annual Guide to Being Local.



- Participated in the national "Shop Indie Local" campaign in November/December 2023 to encourage communities to shift their holiday spending to Indie Locals (locally owned and independent businesses).
- Featured local businesses throughout 2023 on our Facebook page.
- Continued our work with the Ithaca 2030 District Advisory Board and Tompkins County Climate Protection Initiative Steering Committee.

New Roots Charter School

New Roots is a small public high school with a big mission located in the heart of downtown Ithaca. Open to any student in New York State eligible to attend high school, the tuition-free college and life preparatory program engages students in learning actively, thinking critically, and solving real world problems creatively and collaboratively, developing the knowledge and skills to turn 21st century challenges into opportunities. New Roots features a unique four-year learning sequence that fully integrates Education for Sustainability (EfS) standards and interdisciplinary, community-based projects featuring sustainability themes while meeting all New York State graduation requirements. The lower school program (grade 9-10) cultivates foundational understandings and skills that prepare students to become actively involved in their school and local community as leaders, entrepreneurs, and activists when they move into the upper school program (grades 11-12). Students can earn over 40 college credits through Tompkins Cortland Community College's CollegeNow Program for completing core high school courses by meeting college standards.



In the 2023-24 school year, New Roots has dramatically expanded its capacity to support young people in finding pathways to meaningful livelihoods in our growing green economy in upstate New York, thanks to the support of the US Department of Agriculture, Tompkins County, the Town of Ithaca, the Park Foundation, and Cornell Cooperative Extension. Our College and Career Program Coordinator is making connections with local employers such as the City of Ithaca to create opportunities for internships that allow students to see how their learning at New Roots can make a difference in the workplace.

New Roots is pleased to share the following updates on our school-wide climate protection, clean energy, green workforce development, and overall sustainability initiatives in 2023:

USDA 2023 Farm to School Grant



In July 2023, New Roots was thrilled to receive a two-year, \$100,000 USDA Farm to School grant to expand the size, capacity, and learning opportunities at the school farm, which is located at Kestrel Perch Berry Farm at EcoVillage at Ithaca. The goals for the grant are to increase food production, local food procurement, and agricultural education opportunities for students by investing in school garden infrastructure and collaborating with community partners such as West Haven Farm, Groundswell Center for Food and Farming, and Tompkins Cortland Community College (TC3). New Roots teacher and school garden coordinator Aaron Snow kicked off the grant by attending the national USDA Farm to School grantee conference in Atlanta, GA in early fall, visiting school garden sites and local farms, networking with other grantees, and learning about best practices and activity ideas for school garden programs.

The grant has been off to a productive and engaging start. Students participated in planting and hands-on activities up at the school farm during our annual “Sense of Place” fall intensive week in September, which lays essential academic groundwork while building community and teaching school culture through local fieldwork and project-based learning. Students helped plant garlic and green onions at the school farm and took part in corn and carrot harvesting. The school grew squash, corn, kale, cauliflower, lettuce, beets, carrots, radishes, kohlrabi, and potatoes for use in the school kitchen. Flowers were also planted at the school garden to encourage pollination. Produce grown at the farm was incorporated into school lunches, which are free to students through the National School Lunch Program, as well as in Culinary Arts and Food & Farming elective classes. Inside the classroom, activities and tastings have been incorporated into lessons to expose students to new produce items and ways of preparing produce. Surplus produce has been given away to students and families through the school’s Newt’s Grocery Store weekly free food donation program, and has been donated directly to the local Friendship Donation Network, a local food rescue nonprofit and our partner in our schoolwide food donation program.

Snow’s Food Systems class offered in the Fall 2023 semester, which is a concurrent enrollment class eligible for TC3 college credit, covered agriculture and environmental science. Units in the course covered topics such as agricultural history, food insecurity, food waste, food safety, and more. Food Systems students also organized a food drive for the school community as a culminating project for the semester.

During the quieter winter season, other grant-related activities included organizing a student internship focused on herbs, laying the groundwork for a New Roots 4-H Club branch in partnership with Cornell Cooperative Extension, and indoor gardening activities such as growing seedlings and microgreens under grow lights, and building a hydroponics growing system for the school. The hydroponics garden project, which was a student-led initiative for a 12th grader’s senior capstone project, aims to provide hands-on learning opportunities in science classes while also providing produce such as lettuce, which have been incorporated into the school lunch program.



Upcoming activities for the grant include another busy planting and growing season for produce, the coordination of additional student internships and summer opportunities, and integrating farm to school activities into the spring sections of the Food and Farming and Culinary Arts electives. The CSA program at Kestrel Perch will add a new dimension to the grant activities by offering additional learning and engagement opportunities for students. Students enrolled in Snow’s Spring 2024 Entrepreneurship class, also offered for college credit through TC3, will be involved in the launching of this small enterprise. In addition to the berry CSA, the program will also incorporate value-added products, such as jams, which students will help sell at the Tuesday downtown farmers’ market.



Sense of Place Week

The “Sense of Place” fall intensive is a hallmark feature of the school year at New Roots. Towards the beginning of the school year, students spend a week participating in hands-on learning activities and fieldwork in the local region. The outings and activities, which are organized by grade, help build community, and orient students to the local community, history, and natural areas.

During the Fall 2023 Sense of Place Week, students participated in an array of exciting activities: 9th grade students worked on digging and harvesting up at the New Roots school farm and participated in a rowing activity at the Cascadilla Boat Club; 10th grade students worked on a local biodiversity habitat restoration project and participated in a dragon boat activity on Cayuga Lake; 11th grade students did a team

building activity with the Ithaca Youth Bureau and went on a field trip to women's history sites at Seneca Falls; and 12th grade students participated in team building activities at the YMCA Outdoor Campus, and attended a talk and seed harvesting with the Center for Traditional Knowledge and Healing. Students presented their culminating Sense of Place Week projects at family conferences in October.

The Sense of Place Week projects and activities are thoughtfully designed to tie into the interdisciplinary curriculum for each grade level, which is based on the Education for Sustainability (EfS) learning standards, and with guiding questions that connect to the United Nations Sustainable Development Goals.

Roots of Success

First piloted to juniors and seniors in the spring of 2022, with thanks to the Park Foundation, New Roots has continued to integrate Roots of Success into the school curriculum. While it was offered as an elective course in spring of 2023, the goal is to establish Roots of Success as a required course in the school's four-year College and Career Success Seminar sequence. The Roots of Success section offered in Spring 2023 introduced students to topics in environmental literacy and green careers, with field trips to local sites such as the water treatment plant and the electrical bike rental company.



In Spring 2024, New Roots has expanded its course offerings to two sections of Roots of Success, in which primarily sophomores and juniors are enrolled. A Cornell Cooperative Extension grant has expanded our teaching capacity for this course, providing us with a dedicated, Roots of Success-certified adjunct instructor to teach these two spring sections of the course. As an added benefit for students, the course is now approved as a concurrent enrollment class eligible for TC3 college credit.

In addition to earning college credit, students participating in Roots of Success will receive an Environmental Literacy certification from the U.S. Department of Labor, a credential we anticipate that regional employers will be looking for when hiring employees at all levels. New Roots Charter School is a member of a new regional green workforce development consortium which, along with partners such as TC3, will open up pathways for young people to bring their gifts and passions to the growing green economy in our region.

Green Workforce Development at New Roots: *EarthForce*

In December 2022, New Roots was honored to receive a \$160,000 grant from the Tompkins County Community Recovery Fund grant program for a Sustainable Workforce Development Program for Youth project.



The Sustainable Workforce Development Program for Youth project, now called "EarthForce," aims to engage low-income Tompkins County youth ages 12-18 in developing the workforce knowledge and skills necessary to obtain high-quality employment in the growing green economy, focusing on the following priorities outlined in the Tompkins County Comprehensive Plan: 1) Preparation for the economic, environmental, and social impacts of climate change; 2) Preserving existing wetlands and restoring wetland functions; 3) Reducing the adverse impacts to native species and ecosystems caused by invasive organisms and climate change; and 4) Promoting parks, community facilities, recreational

activities, and networks that support regular social interaction and physical activity.

Programming will be offered through after-school workshops, field experiences, and courses offered in partnership with local after-school providers for youth ages 12-15. In addition, we will offer a work-based

learning and internship program for high school credit for youth ages 15-18. The program will build on existing New Roots programming such as the Youth Entrepreneurship Market (YEM), the Youth Ecological Restoration Corps (created in partnership with leaders of the Gayo'goho:no Nation and funded by the Department of Environmental Conservation and the Park Foundation), Roots of Success, the Farm to School program, and other service learning projects in local parks and natural areas.

The program officially launched on Earth Day 2023. This day is dedicated to Earth Day of Service, an annual tradition of awareness raising and service learning at New Roots. Students spent the day engaging in a wide range of ecological service activity choices from urban gardening, planting native trees, clearing invasive species from Six Mile Creek, restoring ecosystems that support migratory birds, and more.

Other developments in EarthForce programming include the development of an Introduction to Building Trades elective, which is being offered in the Spring 2024 slate of elective courses at New Roots. Students will work together with expert builders from local company Impact Builders, learning about careers in the building trades and collaborating on a semester-long project, building a mobile farm stand which can be used up at the school farm at Kestrel Perch, or brought to local events and festivals to promote the farm to school program. EarthForce program coordinator Michael Mazza is also working together with New Roots teacher, photographer, and Digital Storytelling instructor Ben Bookout to produce student-led short documentaries about EarthForce. Programming for Summer 2024 is also currently underway.

New Roots Charter School Digital Media: [WEBSITE](#) // [FACEBOOK](#) // [INSTAGRAM](#) // [YouTube](#)

Paleontological Research Institution, Museum of the Earth, and Cayuga Nature Center



- Education is a climate solution, and one way PRI fosters climate change education is by teaching teachers. Our teacher professional development workshops and conference presentations reached at least 820 teachers in 2023. Since a single teacher can reach hundreds of students, our professional development activities potentially lead to climate change education for tens of thousands of students.
- We continue to publish blog and social media posts on climate change. Our December, 2023 Instagram series on changes to Central New York winters generated several media interviews and articles. Our blog post titled "[Ten Ways You Can Mitigate Climate Change](#)" which we published in 2022 was viewed almost 37,000 times in 2023.
- We continued creating YouTube videos and Instagram reels on climate science and solutions. On YouTube, topics are collected in playlists, such as [In the Greenhouse: Exploring Climate Change](#). See, for example, our 2023 video [CO2 Absorbs IR Energy: An Art X Science Climate Change Collab](#).
- We added a new [Climate](#) section to Earth@Home, PRI's free, online resource for learning about Earth and its history. Since launching, our climate content on this platform has had over 76,000 views.
- We are continuing to explore ways to move away from fossil fuel heating and cooling systems on PRI's West Campus.
- At our summer camp at the Cayuga Nature Center, elementary school-age campers enjoyed climate, weather, and energy education programs, with themes of climate science and solutions. We ran summer climate change education programs for



Trying out the hands-on flood simulator.

the public on Saturdays, and visitors got to try out flooding scenarios and solutions using our fun, hands-on flood simulator.

Park Foundation

- In 2023, the Park Foundation awarded approximately \$7.22 million in grant funds to 108 organizations and programs around the country advancing climate protection and clean energy.



About \$1.78 million of these grant funds (25%) were awarded to 27 organizations and programs in Tompkins County, through the Sustainable Ithaca grant program.

- Grants supported a wide variety of projects in alignment with the Park Foundation mission of advancing a more just, equitable, and sustainable society and environment. Project focus areas included, among others: the fossil fuel transition, GHG emissions reduction, the Ithaca Green New Deal, sustainable agriculture, ecosystem conservation, social justice, green jobs, low-carbon transportation, waste reduction, plastics/petrochemicals, climate resilience, and green finance.
- In March 2023, Park Foundation hired a full-time Program Officer dedicated to managing the Sustainable Ithaca grant program.
- In addition to grantmaking, Park aligns its investments with its priorities by providing local Program Related Investments and with varying levels of screening in the investment portfolio.
- Program Related Investments (PRIs) are mission-aligned loans that the Foundation makes to local organizations in Tompkins County. As of December 31, 2023, PRI commitments totaled \$6.5 million dollars. Some of these relate to sustainability themes focused on by TCCPI.
- Park Foundation was one of the original 17 signatories to the 2014 Divest/Invest Philanthropy Initiative that encouraged foundations to divest from carbon-intensive stocks and commit themselves to “climate solutions” investments. Since 2014, all Park investments are screened and aligned with the foundation’s priorities. Park estimates, conservatively, that about one-fourth of the current portfolio, which was valued at about \$350 million at the end of 2023, is invested in climate solutions. Since the movement began, nearly 1,500 institutions have publicly committed to some form of fossil-fuel divestment, representing nearly \$40 trillion in assets

Sciencenter

- Adopted a new strategic framework that specifically highlights our ongoing commitment to environmental stewardship, including lessening our impact and educating the public.
- As part of a NASA-funded project with the Gulf of Maine Research Institute, the Sciencenter continues to co-lead a Community of Practice for Northeast museums and science centers related to locally relevant climate change education and data literacy. In addition, we launched and continue to facilitate an Ithaca-based connected learning ecosystem (CLE) dedicated to climate education and data literacy that brings together informal and formal educators including middle school science and social studies teachers, and 22 informal STEM educators from various institutions and community-based organizations. CLE meetings were geared around learning about each other’s work and programs, and covered topics such as, building and sustaining partnerships, climate change and storytelling, phenology changes, and water quality and lake level rise.
- In 2023, 1,387 students from Tompkins County and Cayuga County learned about alternative energy using the engineering design process in our Power the Future classroom-based field trip at the museum.



- Our Future Science Leaders (FSL) middle school program engaged in water quality testing and monitoring, data and climate science, and met with experts as they developed climate literacy and communication skills. The middle schoolers also worked closely with experts and prototyped and provided feedback on a NOAA sponsored game about how and who makes decisions related to climate induced lake level rise.
- Over the summer, as part of the national GSK Science in the Summer, Sciencenter educators worked with eight area summer camps, including our own, to share the Be A Physicist program that included a lesson on plant science and adapting to climate change.
- Many of our 2023 Science Connections programming featured activities related to climate science and public discourse. The Science Connections program is designed to engage a family audience visiting the museum during weekend programs. Related programs included our celebration of Earth Day in April, events with Cornell's SEED (Science Education Engineering Development) student group, food science and climate mitigation activities, and programming at the Permaculture Garden Party in collaboration with CCE.
- The Sciencenter finished up work as an advisor on an NSF-funded project supporting youth leadership in climate change action, led by the Oregon Museum of Science and Industry.

STREAM Collaborative

In 2023 STREAM Collaborative continued to dedicate our practice to sustainable architecture and planning through the use of low-carbon materials, high efficiency building systems, and a focus on urban infill, adaptive reuse, and new mixed-use neighborhood planning.



STREAM strives to minimize the use of high-carbon or toxic materials such as portland cement based concrete, steel, vinyl, foam insulation, and actively promotes the use of wood structures, wood fiber, and other plant-based insulation materials.

STREAM also focuses on the design of mixed-use and walkable new neighborhoods through master planning services and consulting on land-use zoning.

In 2023 the [City of Ithaca's Energy Code Supplement](#) that was developed by Sustainability Planner Nick Goldsmith with Ian Shapiro from Taitem Engineering and Noah Demarest from STREAM Collaborative saw a further reduction of allowable greenhouse gas (GHG) emissions to 80% compared to a baseline building. The next increase will be in 2026 when all new buildings and major renovations will need to have 100% net-zero GHG emissions.

Some of STREAM's key highlights for 2023 include:

- The completion of the first PHIUS Certified Passive House in the greater Ithaca area outside of Ithaca's Eco-Village. The project was done in collaboration with Evan Hallas from Taitem Engineering and built by Roberts & Sedorus Builders for clients who were the driving force to the PHIUS certification right from the outset.
- The design for Travis Hyde's adaptive re-use of The Dean (formerly the Gateway Center building) located at 401 E. State street from 5 stories of office space to 46 residential apartments. The project is an all-electric retrofit employing air-source heat pumps for space heating/cooling and domestic hot water.
- Consultation on a new zoning regulation for the City of Watertown, NY in collaboration with Elan Planning (now EDR) with expanded opportunities for increased housing density and mixed-use development in the walkable city core.
- A master plan for a new mixed-used neighborhood development in Gardiner, NY aiming for high-performance building practices with home sites clustered to form social communities and limit environmental impact.
- Numerous other designs for single-family residential renovations, additions, and new builds that employ best practices for enhanced thermal envelopes, air/vapor management, and all electric high-efficiency heating and cooling.

In 2024, STREAM will be seeking even more opportunities to design a variety of housing solutions that minimize the net carbon footprint of both the construction and ongoing operation of the building. We strongly believe planning for housing in the dense, mixed-use, and walkable cores of our cities, villages, and hamlets remains the best way to reduce the collective GHG emissions for the greater Ithaca area.

Sunrise Ithaca



- Tabled at the summer picnic celebrating the end of Get Your Greenback Tompkins
- Began holding weekly meetings to better strategize and build relationships
- Held a community summer picnic
- Tabled at the Earth Day BlocParty hosted by BlocPower and Electrify Ithaca
- Participated in the March for Jordan Neely and Unhoused Lives
- Endorsed Ithaca Solidarity Slate candidates Jorge Defendini, West Fox, Kayla Matos, Phoebe Brown, and Nathan Sitaraman
- Presented on our work and Justice50 at the July TCCPI meeting
- Traveled to NYC to participate in the March Against Fossil Fuels
- Joined a protest against NYSEG rate heights when Governor Kathy Hochul visited Lansing
- Participated in multiple canvassing sessions for the Ithaca Solidarity Slate
- Joined the IDSA organizing efforts to “Make Cornell Pay” during memorandum of understanding negotiations
- Held a joint meeting with Climate Justice Cornell to meet with Ithaca’s Director of Sustainability, Rebecca Evans, and discuss pathways forward for IGND implementation
- Participated in the September Common Council public comment period in support of Justice50
- Attended the IDSA rally celebrating the Build Public Renewables Act
- Hosted an event called “Playground for Change Makers” that shared various tools to improve effective organizing
- Held a well-attended community meeting at the Tompkins County Public Library to share information about Justice50 and receive community input
- Joined the Just Cause Employment campaign

Sustainable Finger Lakes

In early 2023, we took on the important task of two 2-year pilot programs to get heat pumps into lower-income homes and document the many barriers to bringing clean energy to LMI (low-to-moderate income) residents in mobile homes and rentals. Because of unexpected marketplace changes and bottlenecks at NYSERDA, we experienced significant delays in putting the clean energy pilots on a path to success.



Our mobile home pilot funded by the Tompkins County Recovery Fund made decent progress with 25% of the goal of 50 homes reached in six months. This pilot’s process is smoother due to direct ownership, fewer entry requirements, and less data collection. So far, Halco Energy, a national leader in mobile home energy retrofits, has done 90% of the installations. Their prices for this type of housing are competitive, and by stacking all incentives available, the LMI homeowner’s share has averaged only 9% of the installation costs.

Our Clean Energy & Equity Pilot (CEEP), funded by NYSERDA’s Innovative Market Strategies program, to install heat pumps in the homes of low-income tenants in the Ithaca area has faced much larger barriers to success and has required considerable staff time working with landlords, tenants, installers, and NYSERDA reps to address stubborn market problems alongside highly

individualized circumstances for the rental units. The rental pilot is focused on fossil gas systems, and the thin margin of savings from heat pumps will be narrowed further with the increased electric delivery rates approved for 2024. Meanwhile, equipment prices associated with heat pump systems have increased significantly during the pandemic. Even with the substantial stack of incentives in the CEEP program design, several landlords have concluded that they will make more profit by staying with gas systems.

A significant slowdown hit last July when NYSERDA launched its new portal for filing paperwork for low-income occupants. The new website was immediately overwhelmed and funding requests were delayed for months. Some landlords ended up waiting close to a year for projects to be finalized. By the end of 2023, only 7 rentals had received CEEP awards. Other confounding factors have been tenant turnover, delayed inspections by the city, and insufficiently trained installer workforce. However, we have many potential projects in our pipeline and keep working to overcome barriers (while recording issues to guide future programs)

The process has been difficult, frustrating, time consuming – and illuminating. We are working with NYSERDA program managers to explore how we might amend our contract to lower barriers, quicken installations, and expand the geographic range of the pilot in 2024. We remain dedicated to the purpose of our two heat pump pilots to put equity first in the climate agenda, but we are documenting a complex web of factors that must be overcome through policy and market forces to reach our local and state climate goals.

Finger Lakes Climate Fund



In 2023, we awarded 7 Finger Lakes Climate Fund grants of \$16,772 to LMI families in six counties (none in Tompkins) removing 903 tons CO₂, bringing our total to 89 grants of \$151K offsetting 8,475 tons CO₂. We ended the year with about \$30K available for carbon offset

grantmaking, with a focus on supplementing cost sharing for our lower-income landlords and mobile homeowners. We have started outreach to businesses in other counties to join our business sponsorship program for the Climate Fund.

Our partners in climate action include our regional installers, NYSERDA, Performance Systems Development, Tompkins County Mobile Home Task Force, Energy Navigators, and our friends in CCE-TC running the Clean Energy Hub. We are also grateful for Saw Thu Ka Ee's help translating for our Karen refugee community mobile home awardees, and the County assessor's office, Tompkins Community Action, and the Ithaca Housing Authority for help reaching Section 8 tenants and LMI mobile homeowners.

Taitem Engineering

A highlight of 2023 was starting the City of Ithaca's electrification roadmap. With matching funds from NYSERDA FlexTech, Taitem is conducting energy studies for eleven City-owned facilities and will use the information developed in those studies to create a decarbonization plan for the City.



Taitem's Design Department continues its work on new, high-performance buildings and building retrofits. Ithaca Asteri on Green Street is nearing construction completion and features heat pumps for heating and cooling and domestic hot water as well as an all-electric commercial kitchen with the capacity to serve 800 banquet guests. In October, Taitem and the Northeast Sustainable Energy Association (NESEA) welcomed visitors from around the country to Ironworks (430-444 West State/MLK), a featured building in the BuildingEnergy Pro Tour.

Taitem continues to provide statewide services for NYSERDA, NY Homes and Community Renewal, and others as New York ramps up its electrification efforts. A local HCR project now in construction is the new IHA Northside neighborhood.

Taitem is doing some exciting work in New York City: Our team is leading a pilot electrification program for New York City's Department of Housing Preservation and Development, which will install heat pumps for heating and cooling and for domestic hot water in affordable housing throughout the city.

Taitem is providing technical support for a project demonstrating window heat pumps at a New York City Housing Authority apartment building in Queens. With backing from NYPA and NYSERDA, Taitem is currently downloading and analyzing data from monitoring equipment installed during 2023. This project has national significance, as these simple-to-install heat pumps have the potential to transform the market for clean heating and cooling technologies.

A new group of projects focused on decarbonization is a partnership with MetroIAF, one of the nation's largest and longest-standing network of faith- and community-based organizations. Located throughout upstate and supported by NYSERDA, these projects develop low-carbon pathways, including actionable workscopes, for faith-based community organizations.

At the national level, Taitem is excited to be an integral part of one of seven projects nationwide chosen by the U.S. Department of Energy's Advanced Buildings Construction initiative to demonstrate innovative technologies and practices. Working with Syracuse University, Taitem is the energy consultant and design engineer and will provide complete integrated energy and design services along with post-construction services such as commissioning and M&V for a deep energy retrofit of on-campus townhouses.

Also in Syracuse, Taitem completed design and sustainability consulting for the Net Zero Living Lab, a three-year, interdisciplinary research project funded by NYSERDA. Led by the SU School of Architecture, the Net Zero Living Lab focuses on developing replicable approaches to deep energy retrofits that improve efficiency, health, and comfort in cold climates.

Taitem became a Climate Friendly Homes Fund Engineering Partner, working for the Community Preservation Corporation on behalf of New York's Department of Homes and Community Renewal. Taitem facilitates implementation of energy-efficiency and decarbonization measures for multifamily housing through engineering review, desk audits, and development of work scopes.

Taitem provided energy consulting for the first commercial straw-bale building in the Northeast and Binghamton's first commercial net-zero-energy building. This building will provide office space for Volunteers Improving Neighborhood Environments (VINES), an organization committed to developing a sustainable and just community food system.

Thrive EVI Education Center



- Over 400 visitors to the Ecovillage at Ithaca (EVI) through tours and programs
- In-person events include: "Forest Therapy Walks," "Conscious Communication Workshop," "Art-Wellness-Activism Workshop"
- Introduced two Experience Weekends for immersive, in-person education about ecovillage and cohousing living
- Hosted the "Witness to Injustice: Native American and U.S. History from Colonization to the Present" in-person exercise in collaboration with Neighbors of the Onondaga Nation (NOON) and Haudenosaunee facilitators
- Two screenings of "The Week" - a three-day climate change event created by EVI residents. *The Week* is a climate mobilization tool that aims to reach "the broad middle" – the millions of people who are concerned about climate change but not mobilized yet – through a transformative week-long group experience, centered around a 3-part documentary film and

group conversations. <https://www.theweek.ooo/>

- Continued monthly online Q&A sessions for those with interest in EVI. Sessions are recorded and posted to the [Thrive YouTube channel](#)
- Continued free public tours of EcoVillage on the last Saturday of each month and facilitate weekly private tours for audiences interested in starting communities, learning about sustainable cohousing, or fulfilling EVI membership process
- Hosted educational tours for groups from Cornell University Human Ecology, Cornell Humphrey Fellows, Rochester Institute of Technology, Boynton Middle School, Conference on the Environment, Tompkins Chamber of Commerce, the Climate Solutions Accelerator, Ecovillage New Jersey Meetup Group
- Worked with Cornell student volunteers from the Moral Psychology class, and various student groups to further Thrive's goals around outreach
- Worked with several student researchers studying ecovillage or cohousing communities from US and international schools
- Gave presentations about the features of EVI to groups including Foundation for Intentional Communities, Cohousing Institute, and SUNY Geneseo
- Tabled at events at Cornell University, Ithaca College, and the Get Your Greenbacks celebration
- Contributed 1% of income from programs taking place on the land to the Gayo'goho: no Learning Project as a gesture of reparations
- Toured communities in Los Angeles, Davis, Oakland, and Seattle to build partnerships and resource exchange between established intentional communities

Tier Energy Network

The Tier Energy Network (TEN) is an industry led collaboration of business, non-profits, government and education to support the development of an industry cluster in clean energy technology in the Southern Tier.

Our primary activities include:

- Collaborate, educate, and mentor
- Provide leading edge services to established businesses and start-ups: industry analysis, energy market analysis, evaluation of state energy policies and regulation, lean manufacturing, workforce development, trade missions etc.
- Support organizations and businesses to seek private and government funding
- Define the industry cluster in clean energy for the Southern Tier
- Support municipalities, schools, colleges and Universities to implement clean energy strategies



The Executive Committee provides a broad skill set in the energy industry:

Jeff Smith: President of TEN, retired utility executive, member of many regional organizations.

R. Michael Strait: VP of TEN, extensive experience in clean energy projects

Rick Mancini: Retired Director of Wholesale Market Services for Customized Energy Solutions, retired from NYSEG with experience in electric supply and the NY energy markets

Cliff Olin: Chief Development Officer at C4V, Founder and Managing Director of Olin Capital Advisors

Dennis Lockhart: Principal of CIMSEE Consulting. Has developed lean manufacturing projects for Fortune 500 companies around the world

Joe Rusin: Program Manager – Government and Community Relations for NYSEG

Robert Lofthouse: Chair of Engineering Science Department at SUNY Broome

Diane Stefani: Broome County Environmental Management Council, retired Human Resource Executive for Lockheed Martin Aerospace and Defense Business, Climate Reality Project

Southern Tier Update: Our region is entering a once in a generation opportunity for job growth due primarily to clean energy services and manufacturing. Greater Ithaca has been a leader in climate mitigation. Leading edge programs such as the Ithaca 2030 District, the Ithaca Green New Deal, and Finger Lakes ReUse receive broad recognition. The Greater Binghamton Area has become an industry cluster in clean energy manufacturing. We are now a Federal Tech Hub for the battery industry. Binghamton University led collaboration has received major funding, including a National Science Foundation Regional Engine Grant. The Western Southern Tier is a state leader in development of large-scale wind and solar projects. Across the Tier manufacturing companies from Alstom to the Raymond Corporation are making strides in clean energy manufacturing. Our universities and industries conduct leading-edge research.

A little to the north along the Thruway major developments are emerging for the semi-conductor industry from Albany to Buffalo. Many of our companies, such as Corning Inc. serve both industries. These two industries are synergistic. The Micron plant outside of Syracuse will require 1 GW of green electric supply by 2035.

Everything Happening at Once – Our Municipalities are Challenged

The regional priorities have intensified and will require significant collaboration and sense of urgency at all levels to manage:

- Major industry and organic growth opportunities
- Making progress on many barriers to employment: housing, transportation, day care etc.
- Meeting NYS and Federal Climate goals including support for under-served populations
- Re-imagining our communities to attract and retain the resources we require
- Adjusting to fast changing technology

TEN Focus Areas 2023-25:

- Maintain a bi-monthly forum for companies and organizations involved in clean energy and climate mitigation. Recent programs have featured the Ithaca Green New Deal, NYS ISO, Ithaca 2030 District, New Energy New York, Steuben County IDA.
- Produce the monthly energy market update on energy policies and regulations, industry updates, operating and planned energy projects.
- Support development of climate modelling and research for industry and municipalities.
- Evaluate and promote the many new funding sources at the State and Federal level, including the IRA, Defense Act, Chips Act, DOE, USDA, and others.
- Support development of the entrepreneurial community through mentoring, helping to break down the silos, and funding.
- Communicate industry developments to the public, education, government, industry, and non-profits
- Promote and support broad-based collaboration of education, government, industry, and non-profits on the regional priorities

Tompkins County



• **Clean Energy Communities Grant awarded \$30k:** In early 2023 we finished actions qualifying the County for a \$30,000 grant. We then submitted a custom project grant application, Improving with Health with Induction Cooktops, that was awarded later in the year.

• **County-Hosted Heat Pump Trainings:** Worked with NYSERDA and Industry professionals, Jon Harrod and Matt Slimskey, to host two heat pump trainings for code

enforcement officers and heat pump installers on heat pump nonconformities, codes, and best practices.

- **Tompkins County EV Showcase:** Showed off several of the County's electrified vehicles. There were participants from local municipalities and institutions from around the county.

- **Climate Smart Communities Recertification:** Submitted a successful Climate Smart Communities recertification application achieving the highest distinction of Silver and 363 points, the most of any other county in the state.
- **Tompkins County: Building a Sustainable Future Video:** Created a video highlighting the sustainability work the county does for its own operations and the community.
- **Green Facilities Phase I:** Completed major energy efficiency upgrades in many County buildings, including lighting upgrades, weatherization, water conservation, and electric upgrades; installing a geothermal heating and cooling system at the Public Works facility; installing a Variable Refrigerant Flow (VRF) system; and improvements to the heating system at the County Public Library.
- **Tompkins County Congressionally Directed Spending for EV ARCs:** Tompkins County was awarded \$128,000 in matching funds to purchase three EV ARC solar-battery-EV charging stations to help improve the resiliency of fleet charging infrastructure. Expect to purchase and deploy the units in 2024.
- **Build-Ready at Caswell Landfill and ITH Airport:** Engaged with Build-Ready team at NYSERDA to begin feasibility assessments for solar arrays and battery storage at two potential County-owned locations – the closed County landfill on Caswell Road and at the Ithaca-Tompkins International Airport. Projects would result in lease payments to the County.
- **Renewed Energy Service Contracts:** Provide the County with a fixed-rate electricity supply backed by Renewable Energy Certificates (RECs) that enable the County to claim 100% emissions-free electricity.

Tompkins County Climate Protection Initiative

- The Ithaca 2030 District continued to be the flagship program of TCCPI in 2023. Fifty percent of the coordinator's hours are committed to this project. The 2030 District is vital to achieving two important strategic goals for TCCPI: 1) strengthening the involvement of the business community in efforts to reduce the community's carbon footprint; and 2) establishing a process for collecting building performance data in downtown Ithaca and benchmarking it against both national and local baselines. For more details, see the Ithaca 2030 District report above.
- The TCCPI monthly general meetings continued to be very well attended, with an average of about 28 participants. That the meetings continue to attract a sizeable number of community leaders and activists after over fifteen years, together with the high number of requests made to present at the meetings (most of the agenda topics come about this way) and the fact that the agendas for the meetings are usually set several months in advance, reflect the continued strong interest in TCCPI.
- Topics in 2023 included:
 - The Final Draft of Scoping Plan – Bob Howarth
 - Rewiring America – Luis Aguirre-Torres
 - Multi-Modal Transportation & the IGND – Dawn Montanye
 - The County Food System – Don Barber
 - The Sustainable Finger Lakes Heat Pump Pilot for Low-Income Rentals – Gay Nicholson
 - Multi-Residential Passive House Projects in NYC – Ken Levenson
 - Plastic Waste Management in Burundi – Jean Marie Nizigiyimana
 - Climate Change & the Global Food System – Rachel Bezner Kerr
 - The Current State of NYS Climate & Energy Legislation – Anna Kelles
 - Get Your GreenBack Tompkins and the Transition to the Southern Tier Clean Energy Hub – Karim Beers
 - The New State & County Solid Waste Management Plans – Diane Cohen
 - Sunrise Ithaca – Siobhan Hull
 - Zero Waste Ithaca – Yayoi Koizumi
 - Renewable Heat Now – Lisa Marshall
 - Micromobility: Challenges & Opportunities – Jeff Goodmark



- o Ithaca College Climate & Energy Plans – Scott Doyle
 - o Recycling & the Circular Economy – Louise Bruce
 - o CO2 Fracking in Southern Tier – Irene Weiser
- The [TCCPI Newsletter](#), which comes out every two months, had a subscriber base of about 420 and the average open rate during 2023 was 50% for its six issues. The combined TCCPI/Ithaca 2030 District subscriber base was about 495; there is significant overlap among the two groups of subscribers.
- The TCCPI [website](#), which continues to be a rich resource on climate change and clean energy issues, was updated on a monthly basis. All of the meeting notes, annual reports, and newsletters can be found archived on the site, dating back to 2009; it currently has an annual average of 5,600 visits.



articles from the TCCPI Newsletter, and we increased our “likes” from 534 to 581 during the year. Currently, we have 607 followers. In addition, the TCCPI coordinator continued several times a week to post information about energy, climate change, and sustainability issues on Twitter, and has 2,376 followers.

- Efforts to get the word out about the work of TCCPI and Ithaca 2030 District included an article about the TCCPI annual report in the *Tompkins Weekly* in August 2023. In addition, the coordinator presented (virtually) in April to the Tompkins County Emergency Management Council on TCCPI and the Ithaca 2030 District, delivered a keynote (in person) on climate action and the energy transition in Tompkins County at the national Engineers for a Sustainable World conference in November 2023, and presented (virtually) on the Ithaca 2030 District at the monthly meeting of the Tier Energy Network that same month. In addition, TCCPI now has its own channel on YouTube, where selected talks recorded at our monthly meetings are posted regularly.
- TCCPI continued its advocacy activities in 2023, focusing on climate and energy legislation in Albany and actively participating in the NY Renews, Renewable Heat Now, and Climate Can't Wait campaigns.
- The TCCPI coordinator served on the boards of the Groundswell Center for Local Food and Farming, New Roots Charter School, PRI/Museum of the Earth/Cayuga Nature Center, and EcoVillage at Ithaca, Inc, and he was a regular attendant at meetings of the Tompkins County Climate and Sustainable Energy Advisory Board.

Tompkins County Environmental Management Council

In 2023, the Tompkins County Environmental Management Council (EMC) proudly hosted the New York State Association of Conservation Commissions (NYSACC) annual conference. This successful event was the result of six months of dedicated effort by nine to 15 volunteers, working tirelessly from March until the conference dates of September 20-22, 2023.

The conference was thoughtfully designed with three distinct parts:

- **Part 1: Virtual Talks** – Accessibility was prioritized with focused 10-minute Zoom talks featuring over 50 speakers in three simultaneous tracks. Q&A sessions followed each talk. Recordings are available on the [NYSACC's website](#).



Attendees mingle with residents at the Learning Farm..

- **Part 2: Field Trips** – Expert-led field trips throughout Tompkins County were a highlight for many attendees. Destinations
- included Cornell Botanic Gardens, the Honey Bee Embassy, South Hill Cider, the Marshy Garden at the Soil Factory, the Learning Farm, Taughannock Falls State Park, and more.
- **Part 3: Lakeside Reception** – A zero-waste reception on the shores of Cayuga *Conference*
- Lake at Stewart Park provided a relaxed setting to network, honor NYSACC award winners, and hear from keynote speaker NYS Assemblymember Dr. Anna Kelles.

This well-attended conference welcomed over 100 virtual and 60 in-person participants. It has established a successful model for NYSACC's future bi-modal conferences (combining remote and in-person elements).

Additional EMC Activities

2023 Guest Presentations

The EMC continued to facilitate knowledge growth and information sharing in 2023. We were pleased to offer the following presentations at our regular meetings:

- **Ithaca Green New Deal Scorecard** - Tom Hirasuna, Barbara Luka, Diane Stefani, Paula Welling of Climate Reality Finger Lakes Chapter
- **Tompkins Community Choice Aggregation (CCA) 3.0** - Paul Fenn, Local Power
- **Connect and Collaborate: TCCPI and the Ithaca 2030 District** - Peter Bardaglio, TC Climate Protection Initiative and Ithaca 2030 District
- **Legal Aspects of a Circular Economy Business** - Joey Diana Gates, EMC member and Dish Truck founder/owner
- **Ithaca Farmers Market Site Improvement & Redesign** - Monika Roth, IFM board president, and Scott Whitham and Yifei Yan, Whitham Planning & Design
- **Tompkins County Food System Plan** - Don Barber, Food Policy Council of TC & Katie Hallas, Food System Plan Coordinator.
- **Introduction to the Tompkins Pollinator Pathway** - Brandon Hoak, Tompkins Pollinator Pathway

2023 Committee Work

EMC members actively participate on at least one committee, each focused on specific goals:

Education and Outreach (E&O) Committee

Members: Melanie Greaver Cordova (chair), Marc Devokaitis, Brandon Hoak, Susan Riley, Brad Will

- **Connection with Municipal Conservation Groups:** The E&O Committee successfully organized a joint meeting with local conservation boards and conservation advisory councils at Stewart Park. This collaborative event focused on knowledge sharing and planning for the NYSACC conference.



E&O members tabling at the Ithaca Farmers Market for Earth Day 2023

- **Green Scene Newsletter:** The committee continued to produce the Green Scene newsletter, offering bi-weekly updates on environmental events, news, and activities throughout Tompkins County. The team enhanced the format and workflow, ensuring greater accessibility and consistency. Through the Green Scene, the committee also actively monitors DEC environmental notices and wastewater discharge alerts for the county. To subscribe or view past issues, please visit: bit.ly/GreenSceneArchive.
- **Earth Day Tabling:** E&O Committee members engaged with the community by representing Tompkins County EMC at the Ithaca Farmers Market for Earth Day 2023.
- **Inter-County Collaboration:** Building valuable connections, EMC Chair Cait Darfler presented to the St. Lawrence County EMC, sharing insights on the Tompkins County EMC's structure, successes, and challenges.

Unique Natural Areas (UNA) Committee

Members: Steve Nicholson (chair), Steven Bissen, Karen Edelstein, David Weinstein, Robert Wesley, Lindsay Dombroskie, George Adams, Tom Corey, and Jeff Walker

Key Activities

- **UNA Inventory Updates:** Consultants Karen Edelstein and Robert Wesley continued the UNA inventory updating process. They added new wetlands data and provided justification for boundary changes. A total of 69 UNA sites were revised this year.
- **Site Visits:** Robert Wesley conducted site visits to the following UNAs:
 - UNA 13 – Groton Water Supply Fen
 - UNA 64 – Lake Cliff South of Portland Point
 - UNA 112 – Dryden Peat Swamp
- Wesley reported his findings to the committee and submitted them to the County Planning & Sustainability Department.
- **239 Reviews:** As requested by Tompkins County, the committee reviewed 239 land-use proposals. These reviews assess the potential impact of foreclosures or new development projects on natural, cultural, and historic resources. The committee also evaluates concerns regarding zoning, land use plans, and economic/fiscal consequences.

Reviewed Projects

- **East Shore Circle Subdivision:** No Comment
- **Learning Farm Site Plan Review:** Construction and land modifications appear to be located well away from the UNA. Extensive hydrologic modeling suggests minimal impact on runoff into the UNA stream.
- **66 North Street Single Family Home:** The project is acceptable as long as the structure maintains a 100-foot stream buffer and utilizes public sewer. The proposed usage is compatible with the site, which has access to public water and sewer. While the committee generally prefers permanent foundations for housing, this proposed use of the site appears suitable.
- **42 Esty Drive:** No comment

Bell Station Preserve Field Trip

The UNA Committee co-hosted a field trip to the Bell Station Preserve (UNA-195 Nut Ridge) as part of the NYSACC Annual Conference on the Environment. Approximately 30 attendees explored this 480-acre UNA with guidance from the Finger Lakes Land Trust. Robert Wesley provided botanical expertise, highlighting the preserve's large and protected population of twin leaf (*Jeffersonia diphylla*), an ephemeral spring wildflower listed as threatened in New York State.



Climate Adaptation Committee

Members: Regi Teasley (chair), George Adams, Christine Collins, Tom Corey, Thomas Hirasuna, David Wolfe, Ingrid Zabel

The Climate Adaptation Committee met monthly throughout 2023 to address the growing impacts of climate change on Tompkins County residents. The committee's work focused on preparing residents with accurate information and empowering them to take steps to address the risks they face.

Key Activities:

- **Information Gathering and Synthesis:** Members diligently researched, compiled, and archived information on the impacts of climate change, with a focus on the primary local threats of flooding and excessive heat. Sources included state and national agencies, emergency preparedness organizations, and the Tompkins County Department of Emergency Response.

- **Public Education Materials:** For Earth Day 2023, the committee created and distributed flyers on flooding preparedness and response. These were shared at the Ithaca Farmers Market and a Southside Community Center event. In addition, members developed both English and Spanish versions of an excessive heat preparedness flyer, distributing it through the Latino Civic Association.
- **Community Presentations:** Throughout the year, committee members led presentations, workshops, and classes:
 - **Lifelong Senior Center:** A two-part class exploring flooding and excessive heat preparedness.
 - **First Presbyterian Church and Unitarian Universalist Church Adult Education:** The talks focused specifically on flooding risks and preparedness.
 These presentations were well-received and sparked important discussions within the community.

Key questions and concerns raised by participants highlighted the need for:

- **Accessible Emergency Information:** A centralized webpage for storm updates, evacuation routes, and shelter locations.
- **Transportation Planning:** Addressing the needs of residents without vehicles during flooding events.
- **Rural Considerations:** Tailored preparedness plans for rural residents, potentially focusing on transportation and resource access.

Tompkins County Water Resources Council

The Tompkins County Water Resources Council (WRC) serves as an advisory board to the County Legislature on matters related to water resources management and planning. The Council's mission is to identify problems, propose priorities, and facilitate coordination of activities to protect the County's water resources. In addition, it provides a public forum for local communities and stakeholders to discuss their water resources concerns while fostering collaboration among local governments, public and private institutions, agencies, and organizations throughout the County.

2023 Presentations

The WRC regularly invites guest speakers to present on water-related topics. In 2023, presentations included:

- **Proposal to Monitor and Provide Long-term Groundwater Level and Water Quality Data for Aquifer Systems to Tompkins County** – *Stephanie Redmond and Bill Kappel*
- **Payment for Ecosystem Services: An Incentive-based Approach** – *Jenna DeRario, Cornell Cooperative Extension Tompkins County*
- **The State Revolving Funds and Funding Opportunities for Water Infrastructure Projects** – *Nicholas Demitraszek, NYS Environmental Facilities Corporation*
- **Grant Opportunities Used to Help Homeowners Replace Aging and Failing Septic Systems** – *Douglas Barnes, TC Environmental Health Division*
- **PFAS and Biochar** – *Johannes Lehmann, Cornell University*
- **Owasco Lake Watershed Rules & Regulations Process and Current Status** – *Eileen O'Connor, retired Cayuga County environmental health director*

2023 WRC Committees

Every January, the WRC reviews existing committees and forms new ones to guide its efforts for the year and accomplish actions of the Water Quality Strategy. In 2023, the following committees were active:

Education & Outreach Committee

The Education & Outreach Committee took the initiative to update the [Clean Boating on Cayuga Lake map](#).¹ This map includes helpful information for boaters, such as dining options, restroom facilities, boat repair services, fuel locations, and more. The committee was informed that funding was available and pushed the project to the front burner. Members meticulously ground-truthed the map's accuracy, ensuring all necessary updates were made. The finalized map has been printed and is available for the upcoming boating season, showcasing the committee's commendable dedication and hard work.

Executive Committee

The WRC chairperson and Executive Committee act on behalf of the WRC in issuing letters of comment and advocacy to local, state, and federal agencies. These letters are drafted by WRC members or committees and then approved by the entire Council. In cases where a timely response is needed and deadlines do not align with the WRC's regular meeting schedule, the Executive Committee is empowered to approve and submit letters on the WRC's behalf.

Throughout 2023, the WRC chairperson and Executive Committee delivered several letters:

April: The WRC wrote Commissioner Basil Seggos of the NYS Department of Environmental Conservation (NYS DEC) requesting engagement by both the NYS DEC and the U.S. EPA Region 2 office with Cayuga Lake watershed partners regarding the status of a Clean Water Plan for Cayuga Lake. This outreach initiative was done in coordination with the Cayuga Lake Watershed Intermunicipal Organization, the Cayuga Lake Watershed Network, and other stakeholders. In 2021, the WRC submitted extensive feedback on the draft Total Maximum Daily Load (TMDL) for Total Phosphorus in Cayuga Lake. In 2022, the WRC also commented on proposed changes to the draft 2020-2022 Clean Water Act Section 303(d) List of Impaired Waters. One of the changes proposed by the NYS DEC included the de-listing of the southern end of Cayuga Lake as impaired by sediment, which was of particular concern to the WRC as it relates to the draft TMDL. In May, NYS DEC Division of Water responded to the WRC's letter stating that the "TMDL is anticipated to be finalized this summer." However, summer has come and gone and there is still no final TMDL as of this writing.

June: The WRC provided NYS DEC with comments on the State Solid Waste Management Plan. While supporting the transition to a circular economy, the WRC requested the suspension of all biosolids applications until they can be tested and determined to be free of per- and polyfluoroalkyl substances (PFAS) contamination. The WRC further supported the establishment of PFAS monitoring protocols, emphasizing the need for robust state-supported financial and administrative measures to avoid placing undue burdens on taxpayers and small treatment plant operators.

July: The Council submitted a letter of support in favor of the Cayuga Lake Watershed Network's request for funding through the Finger Lakes Watershed Grants Program. This funding would enable the development of an interactive map for the Cayuga Lake watershed, similar to the EcoHealth Report Cards developed by the University of Maryland, utilizing existing water quality data.² The funding proposal was not ultimately successful, but interest in pursuing this project continues.

October: The WRC sent a letter to Governor Hochul expressing concerns about the future of the Cayuga salt mine operated by Cargill in Lansing. The letter highlighted the lack of a publicly available Environmental Impact Statement for the mine and requested information relevant to the mine's future, emphasizing the need for public input and commentary.

Cayuga Lake Monitoring Partnership Committee

The Cayuga Lake Monitoring Partnership Committee continued its dedicated efforts to protect and improve the water quality of Cayuga Lake. Here's a summary of key committee accomplishments from the past year:

Advocated for the completion of the Cayuga Lake TMDL. The committee engaged directly with Finger Lakes Hub staff and drafted a letter for the WRC to send to state officials to press for the TMDL's finalization.

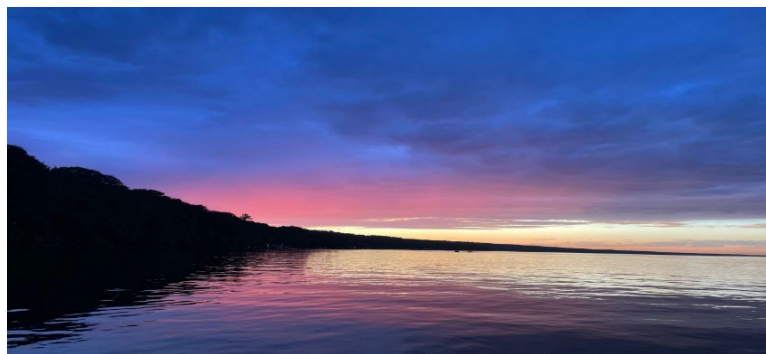
¹https://tompkinscountyny.gov/files2/planning/committees/WRC/documents/cayuga_lake-boating-map-brochure-2023-web.pdf

² <https://www.umces.edu/sites/default/files/Ecosystem%20health%20report%20cards.pdf>

Secured funding for an important water quality modeling project. The committee received a grant from the Park Foundation for Cornell Professor Emeritus Dave Bouldin's carbon, calcium, and nutrient model for Cayuga Lake. This work is in progress and will provide valuable insights.

Explored strategies for phosphorous reduction. The committee discussed opportunities for using Community Science Institute data to identify priority spots for phosphorus reduction projects in Tompkins County and for using volunteer data more broadly with Finger Lakes Hub staff.

Reviewed and responded to proposed regulations. The committee carefully reviewed the state's response to the draft Owasco Lake Watershed Rules and Regulations, subsequently drafting a letter for the WRC's consideration (approved in January 2024). The letter expressed deep concern that the state's revisions diminish protections for Owasco Lake and the residents who rely on it as a drinking water resource.



Cayuga Lake at sunset. Photo courtesy of Darby Kiley.

Stayed informed on the Phosphorus Offset Program. The committee received regular updates on Cornell University's Phosphorus Offset Program, remaining current with developments.

Fostered collaboration among watershed stakeholders. The committee provided a monthly venue to engage with local watershed organizations and resource managers to exchange information about their

work and upcoming events. Regular participants

include the Cayuga County Planning Department, Community Science Institute, Cayuga Lake Watershed Network, Cayuga Lake Watershed Intermunicipal Organization, Cayuga Lake Environmental Action Now, Cornell University, and Tompkins County's Environmental Management Council, Planning & Sustainability Department, and Whole Health Department.

Membership & Nominating Committee

The Membership & Nominating Committee plays a key role in shaping the Council, by recruiting and nominating new members. The Council itself is composed of 21 voting members, alongside non-voting ex officio members from relevant federal or state agencies, and associate members with committee-level voting rights. Recent accomplishments of the committee include successfully adding several new members to the Council, largely due to the valuable input and recruitment efforts of County planner Darby Kiley. Moreover, the committee presented the 2024 slate of officers to the Council for nomination.

Municipal Training Committee

In 2023, the committee assisted in hosting two training sessions:

Municipal Good Housekeeping: This module was offered as part of the Broome-Tioga Stormwater Coalition's stormwater winter training sessions. John Dunkle, expert stormwater engineer, led the online class in March. A partner organization covered the training fee, and the county provided a viewing space at the Public Works Facility, so municipalities could attend for free. Eleven people participated from five municipalities (City of Ithaca, Town of Dryden, Village of Lansing, Village of Cayuga Heights, Town of Ithaca) and the Soil & Water Conservation District.

Online Planning Tools for Municipalities: Committee members Darby Kiley and Kristen Hychka hosted this webinar, which served as the committee's primary training initiative for the year, on the evening of Nov. 13. During the session, they demonstrated various mapping tools and resources available online to help municipal boards understand land uses and environmental resources. Participants were introduced to various county, state, federal, and other resources and were guided on how to navigate them effectively. In addition, committee members prepared a [comprehensive guide](#) to the webinar, providing a succinct overview of navigating online spatial tools and a list of online resources, links, uses, and

highlights.³ Twenty-three individuals registered for the session, with 12 attendees representing planning and zoning boards from six municipalities (Town of Danby, Town of Dryden, Village of Freeville, Town of Ithaca, and Village of Trumansburg). Furthermore, an abbreviated version of the presentation was delivered to the WRC at the December meeting.

Regional Watershed Coordination Committee

The Regional Watershed Coordination Committee, a collaboration of WRC and regional partners,



Six Mile Creek. Photo courtesy of Roxanna Johnston.

engaged in discussions focusing on issues relevant across multiple watersheds (Cayuga, Owasco, Seneca lakes), including how to access funding for regional approaches to Clean Water Plan implementation. The group plans to reconvene to review the draft Finger Lakes Action Agenda and discuss educational initiatives and the Implementation of the Cayuga Lake TMDL, neither of which was released by the end of 2023.

Watershed Rules & Regulations Committee

The Watershed Rules and Regulations Committee includes representatives from the Tompkins County Whole Health Department, the three surface water public drinking water utilities (Bolton Point, Cornell University, and the City of Ithaca), and other WRC members. All three utilities have either developed or are pursuing a Drinking Water Source Protection Plan (DWSP2).

Discussions of watershed rules and regulations resumed in earnest after the state released its response to the draft Owasco Lake Watershed Rules and Regulations in August. Both the Watershed Rules & Regulations and Monitoring Partnership committees met jointly to develop a letter for WRC consideration (see details under the Monitoring Partnership).

Committee meetings provide a forum for information sharing as the utilities move through the DWSP2 process.

Bolton Point took a proactive measure by purchasing a property around their intake to enhance source and infrastructure protection, later contracting with consultants Barton & Loguidice to develop their DWSP2. Cornell University continues to progress with developing their DWSP2.

The City of Ithaca's DWSP2 plan, adopted in late 2022, was presented to the Town of Dryden's Conservation Board in 2023. Additional implementation actions include the following:

- The Great Lakes Basin Small Grants Program awarded the city \$47,500 for a build-out analysis along the Six Mile Creek corridor. This analysis will guide future development to minimize negative water quality impacts.
- Review of watershed municipal solar (or related) laws and near completion of a model solar law for municipalities to bolster water resource protections (roll-out planned for 2024).
- NYS DEC awarded Tompkins County a \$75,000 Non-Agricultural Nonpoint Source Planning grant for comprehensive stream assessment to guide future best management practices/stream work in the watershed.
- Sampling for EPA's fifth Unregulated Monitoring Contaminant Rule program started and will continue through 2024, with a focus on 29 PFAS and lithium.

³https://www.tompkinscountyny.gov/files2/planning/committees/WRC/documents/wrc_map_planning_resources_2023.pdf

- Information sharing on PFAS monitoring in general and discussion of pending changes to the U. S. EPA's Lead and Copper Rule and its impacts on water utilities.

Tompkins Food Future

- The [final comprehensive Tompkins County Food System Plan](#) was brought to the Tompkins County Legislature in July 2022 and accepted unanimously.
- Since then we have been working to get the word out about the plan and build support for it in the community.
- We convened a Tompkins County Food System Summit in September at the Treman Center with the following goals:



- Strengthen our community's capacity to collaborate around food system opportunities
- Expand food system engagement among stakeholders and decision-makers
- Advance the Tompkins County Food System Plan and,
- Facilitate connections and relationships across sectors of our community

- The Summit helped to facilitate new and ongoing

partnerships and collaborations in food system programs and initiatives, building systems and infrastructure to support more efficient and effective partnerships and outcomes.

- We also held the following workshops:
 - A Discrimination Financial Assistance Program Workshop in October to help with applications to the program. The USDA announced it was providing \$2.2 billion in financial assistance to farmers, ranchers and forest landowners who experienced discrimination in USDA's farm lending before January 1, 2021.
 - A series of Farmer Meet-Ups during the year to provide opportunities to come together, meet new faces, share information and resources, build connections, and strengthen community ties.
 - A Food System Grant Strategy Workshop in May support participants looking to gain skills in the areas of fundraising, grant writing and reporting, connecting with other like-minded organizations to explore collaborations, balance programmatic and development work, and strategize around more sustainable fundraising approaches.
- We were awarded \$50,000 from the County Legislature to pilot the Food System Grant Education program, aimed at providing direct, 1:1 support to food system leaders and farmers seeking funding and grants.
- Throughout the year, in meeting with groups and organizations and in our newsletters, we have been encouraging them as well as individuals to take the [Community Food System Pledge](#).



Town of Caroline

Town Zoning Law: On March 20, 2024, the Caroline Town Board adopted the town's first zoning law. The work to develop the zoning law occurred over the past three years. The zoning law promotes the goals of the town's Comprehensive Plan. It is designed to promote livable residential centers while protecting open space. Highlights include:

- Four types of districts are established: Agricultural/Rural, Hamlets (7), Focused Commercial, and a "Stream Corridor Overlay" District. These districts were defined by current patterns of development and environmental conditions, with the goal of protecting and promoting the quality of life in each of the parts of the town and the town overall.

- Housing of all types is permitted in all districts and there are incentives for senior and affordable housing units.
- Design Standards are established for commercial businesses.
- Home Business and Residential Secondary Businesses are permitted throughout Caroline, supporting local businesses and the local economy.
- Agricultural Operations and Structures are permitted in all districts. Major Subdivisions and commercial developments are required to establish buffers with adjacent Agricultural Operations.
- Two measures promote preservation of open space and are protective of agriculture in the town. In the Ag/Rural District the zoning law establishes a 3-acre average for future subdivisions. This is a modest subdivision limit that promotes the preservation of open space and gives landowners the right to establish how their land is subdivided. The second measure is the Conservation Subdivision provision for Major Subdivisions in the Ag/Rural District. It is designed to conserve open land (50%) and protect the environment.
- The Stream Corridor Overlay District establishes riparian (stream) buffers to protect our waterways and fresh waters, as well as property owners and their assets. Riparian buffers for Six Mile Creek (horizontal distance from the top of the stream bank on each side of the stream) are 75-ft in the hamlets and 100-ft in the Ag/Rural and Focused Commercial Districts. For other perennial streams, the riparian buffer width is 50-ft. For intermittent streams the riparian buffer width is 25-ft.



Local Clean Heating & Cooling Campaign: The Feasibility Study for a Community Geothermal System (or “Thermal Energy Network”) for the hamlet of Speedsville that we reported on last year is nearing completion. If successful, this will provide Speedsville homes and businesses with the option of economical and energy efficient heating and cooling, and provide a model for other rural communities currently using fuel oil and propane for heating.

Brighten Up Caroline (Clean Energy Communities Program): The NYSERDA-funded Brighten Up Caroline program concluded in 2023. This program resulted in converting our streetlights to town-owned LEDs, distribution of LED bulbs to Caroline residents, and conversion of two of our fire halls (Slaterville and Brooktondale) to LED lighting.

Town of Dryden



- Dryden finished the year number one in the NYSERDA Clean Energy Communities Program eight-county Southern Tier region, with 5300 points and 15 high impact actions completed.
- The Dryden Climate Smart/Clean Energy Communities Task Force met monthly to implement recommendations in the 2022 Town Climate Action Plan, including completing actions to reduce greenhouse gas emissions from municipal operations and prepare the town for the effects of climate change.
- In July 2023 the Town achieved another \$70,000 grant, the highest available to small municipalities in the NYSERDA Clean Energy Communities Program Southern Tier Leadership Round, bringing the total of grants received for clean energy actions to \$153,000. The grant was based on accumulated actions, including reducing municipal operation GHG emissions by 16% by contracting for 100% renewable energy beginning in 2022.
- The Town combined three NYSERDA grants to undertake a \$100,000 energy upgrade for the Town DPW office building. The 3600-square-foot cement block structure currently is heated by natural gas. Energy conservation measures will include insulating the shell of the building, replacing some windows, and installing air source heat pumps.

- NYSEERDA grants also contributed toward the cost of purchasing a plug-in hybrid vehicle for use by Code Enforcement officers. The vehicle is powered from the town hall EV charging station, installed with earlier Clean Energy grants.
- Under a new NYSEERDA funding round announced in December, the town launched a second Clean Heat/Cooling Community Campaign, promoting electrification of residents' homes and small businesses. The first town campaign resulted in more than 10 heat pump installations, and a \$5,000 grant for further GHG reducing actions.
- In September 2023, the New York State Association of Conservation Commissions (NYSACC) gave Dryden their top honor, the Environmental Project Award, for the collaboration between the CS/CEC Task Force and the Sustainability Club at Dryden High School. In addition, the two student members on the Task Force, Kathryn Lee and McKenna Crocker, were granted the top Youth Achievement award by the statewide association. And Bob Beck was honored for his role as leader of the Dryden Rail Trail Task Force, and a lifetime of environmental work in Tompkins County.
- In December 2023 the CS/CEC Task force and the Dryden Conservation Board held a joint meeting to learn about programs that extend pollinator pathways. The Dryden High Sustainability Club voted to partner with the town to create a pollinator pathway pilot project at the high school campus, as a spring project. They will be working with Brandon Hoak of the Tompkins County Pollinator pathways program.
- On the Climate Smart Community front, the Task Force initiated research to create the town's first Climate Change and Resiliency Plan (CCARP), with Climate Smart Regional Coordinator Jerry Sheng, of CCE-TC. First step was a survey to Dryden leaders and stakeholders about critical assets, including built environment and town natural resources, that need protection in the event of extreme weather. Dryden High School Sustainability club members helped promote completion of the survey. More than 100 responses were received. The results will be incorporated into the CCARP data. Next the town began organizing a 2024 Scenario Planning Workshop for invited town and village leaders, on preparing for extreme weather events that will result from climate change. Completion of the CCARP will bring points towards the Climate Smart Community Silver Certification that the town is seeking. The Town is currently Bronze certified.
- The Dryden Affordable Housing Task Force began work on making mobile homes more energy efficient, in a joint effort with the Regional Energy Hub at CCE-TC and Sustainable Finger Lakes Climate Fund
- The Town Board approved a wetland delineation study of 80+ acres behind town hall to determine environmental factors as it plans to build town recreational fields and considers other development proposals for the site.
- Emissions at Berkshire Hathway Energy's (BHE) facility in Ellis Hollow (known as Borger Station) saw considerable percentage decreases in criteria pollutants. Harmful Air Pollutants (HAPs) emissions in 2023 were 80% less than 2021, despite increased demand for natural gas. The improved compressors at BHE's plant run much cleaner. This is good news for residents and once again validates the town's conditional support for the upgrades. However, we still have work to do to decrease demand for natural gas.

Town of Enfield

- The Drinking Water Protection Plan was sent to the state for review
- The Water Protection Committee has been conducting extra water sampling on targeted areas to evaluate the effects of manure spreading on waterways
- We formed a Sustainability Committee
- Passed a resolution to join Climate Smart Communities
- Began benchmarking utilities
- Reviewing the possibility of installing solar on the Town Hall
- Added water protection measures to our subdivision regulations and site plan review
- Started an annual Townwide ditch cleanup day



- Hosted an “Enfield Trash Talks” event to discuss waste reduction

Town of Ithaca

- Hired a new, full-time Sustainability Planner for the Town of Ithaca.
- Participated in the NYSERDA Stretch to Zero program quarterly meetings with other municipalities from NYS.
- Created the Ithaca Energy Code Supplement (IECS) Implementation Assistance Program, using the grant funds awarded from the NYSERDA Stretch to Zero Program. Developed and released an RFQ, reviewed applications, and selected TY Lin for the IECS Implementation Assistance Program.
- Reconvened the IECS Workgroup with the City of Ithaca to update existing amendments in the IECS.
- Supported Green New Deal implementation, for example through project management and coordination with Town Supervisor.
- Worked with interdepartmental team to advance GHG reduction in Town facilities: provided project management and/or other support on energy assessments, planning for implementation, and funding application.
- Worked with interdepartmental team on the Town Hall Weatherization project. Support included grant research and cost of carbon estimates for the building.
- Continued development of Community Choice Aggregation program in collaboration with City of Ithaca and Local Power.
- Represented Town regionally and nationally, including collaboration with Urban Sustainability Directors Network and presentation for Discover Cayuga Lake.
- Attended antiracism and equity workshops to inform equity elements of Green New Deal.
- Negotiated new electric supply contract in partnership with Budget Officer.
- Supported Public Works in implementation of Green Fleet Policy.
- The Town’s Solar Law was approved by the Town Board.
- Supported participation in City of Ithaca’s Electrification program.
- Leveraged Town efforts by working with student interns.

