

Monroe County Climate Action Plan Advisory Committee Meeting Minutes

via zoom

September 2, 2021 (3:30 – 5:00 p.m.)

Drafted: September 3, 2021

Approved: October 7, 2021

Members: John Botelho, Fred Ancello, Matthew O'Connor, Sue Hughes Smith, Kate Walker, Helen Frank, Liam Smith

Absent: Karla Boyce, Mike Garland, Mike Yudelson, Leah Wirley

Staff: Clement Chung, Tina Stevens, Joe VanKerkhove, Yasmin Guevera, Isabelle Haddad

Guests: Kim Baptiste, Robert d'abadie, Chris Robasco, Ram Shrivastava, Dmitry Liapitch, Jayme Thomann, Jerry Acton, Lisa Marshall, Ned Green, Anna Cerosaletti

Welcome, Introduction and Announcements (Co-Chair O'Connor)

1. Meeting called to order at 3:33 P.M. by Co-Chair O'Connor.

Approval of Minutes (Co-Chair O'Connor):

1. Minutes from the August 5, 2021 meeting were unanimously approved. Motion by Fred Ancello; seconded by Sue Hughes-Smith.

Legislative Update (County Legislator Ancello):

1. No legislative actions were proposed or taken over the past month.
2. Question was asked regarding Open CPACE inquiries or applications: Clem Chung stated the County Law Department is reviewing documents with EIC (the vendor that will manage the program).
3. How the program will be promoted is unknown at this time.

Climate Action Plan Update (Joe Vankerkhove / Bergmann Associates):

1. Next task for the County Government Operations section of the Climate Action Plan is to digest the acquired data and determine the next steps.
2. Bergmann and Michael Baker met with ICLEI to review the numbers and there are no unusual findings. Solid Waste dominates and that information has been provided to the Solid Waste consultant for review. CO2 emissions from abandoned landfills are categorized as Waste in Place. Reducing the waste stream is thought to produce less methane over time.
3. When Solid Waste is removed from the GHG report, the two major categories of emissions are Buildings/Facilities and Water Resource Recovery Facilities. Transit fleet are county vehicles only, no mass transportation. Barring any changes to solid waste, this is thought to be the starting point for reducing emissions.
4. Joe Vankerkhove indicated that the County has the electric and gas usage for individual facilities, and that mechanical and operational efficiencies will be evaluated first.
5. A Climate Action Plan is an element of the Climate Smart Communities Program. 20 counties, including Erie, Madison, Schenectady, Sullivan, Tompkins and Ulster, have received points for having a government CAP. Monroe County is registered and working toward Bronze CSC certification. The plans from these counties will be examined and evaluated to find opportunities that Monroe County might take advantage of.
6. GHG Emissions:
 - Emissions reduction targets establish a quantifiable reduction in GHG emissions by a predefined date
 - Set goals indirectly related to GHG emissions but reflect larger values, such as increasing participation in a particular program
 - It is important to consider existing goals set by the State and/or regional climate and sustainability plans.
7. CSC Performance measures for the reduction in GHG from Government Facilities (based on NYS 2010 baseline):
 - Reduce GHG emissions from government facilities by 10-14% (15 points)
 - Reduce GHG emissions from government facilities by 15-19% (20 points)
 - Reduce GHG emissions from government facilities by 20-24% (25 points)
 - Reduce GHG emissions from government facilities by 25-29% (30 points)
 - Reduce GHG emissions from government facilities by 30-34% (35 points)
 - Reduce GHG emissions from government facilities by 35-39% (40 points)
 - Reduce GHG emissions from government facilities by 40% or more (45 points)
8. CSC Performance measures for the reduction of Solid Waste from Government operations (based on NYS 2010 baseline):
 - Reduce waste from government operations by 10-19% (3 points)
 - Reduce waste from government operations by 20-29% (4 points)
 - Reduce waste from government operations by 30-39% (6 points)
 - Reduce waste from government operations by 40-49% (8 points)
 - Reduce waste from government operations by 50% or more (10 points)

9. The County's Facilities past and ongoing sustainability initiatives, including Green Buildings/LEED, Alternative Fuel and Hybrid/EV Charging Stations, Solar/Green Power, Recycling/ecopark/Resource Recovery, Lighting, and Education, Outreach and Awareness will be included and evaluated as part of the process.
10. A draft purpose statement will be developed that includes goals for the plan.
11. An iterative process, organized around focus areas and emission categories, will include the following:
 - What does the County have control of?
 - What is the GHG reduction potential / impact?
 - How can actions be phased?
 - What are the costs in comparison to the benefits?
12. Targets for each GHG sector include:
 - Buildings and Facilities
 - Expressway Lighting and Signals
 - Solid Waste and Materials Management
 - Transportation Fleets
 - Water Resource Recovery Facilities
13. The implementation framework will include prioritizing actions that help to achieve GHG reduction goals:
 - Responsible parties and capacity
 - Partnerships and collaboration
 - Costs, funding and ROI
 - Challenges and barriers
 - Monitoring outcomes
14. Updated Project Schedule and Next Steps:

Task	Timeframe
GHG Baseline Inventory	September 2021
GHG Reduction Goals	September – November 2021
Case Studies and Best Management Practices	September 2021
Identify and Analyze Strategies / Actions	September – November 2021
Prioritize Strategies / Actions	October – December 2021
Draft Climate Action Plan	January 2022
Final Climate Action Plan	February 2022

New Business:

1. Jerry Acton, Complex Systems Architect, GreyEdge Group, LLC, and Lisa Marshall, Program Director, Heat Smart Tompkins, presented an update on their Electro-Thermal System Integration Pilot Project NYSERDA efforts in Brighton.
2. Building heating and cooling is 30% of the main sources of GHG in New York State. CLPCA requires emission limits to reflect a 40% reduction in statewide GHG emissions by 2030 and an 85% reduction by 2050.
3. Beneficial Electrification: electrifying transportation and buildings is key to reducing energy use and emissions. Heating and cooling of spaces is more than ½ of energy use.
4. Decarbonized Homes/Buildings:
 - Building envelope: air sealing, insulation
 - Space Heating/Cooling: Air source heat pumps, ground source heat pumps
 - Hot Water: Heat Pump Water Heaters
 - Efficient Electric Appliances: Induction Stove, Heat Pump Dryer
5. Heat pumps have multiple applications, such as space heating and water heating with ground source heat pumps, air source heat pumps and heat pump water heaters.
6. Key program elements:
 - Provide affordable energy for all
 - Harvest all local, clean, renewable energy
 - Create vision for beneficial electrification
 - Integrate High performance electric/thermal network
 - Define modular, scalable, replicable building blocks
 - Negotiate co-existence with legacy utility infrastructure
 - Leverage all existing energy company assets
 - Reduce technical and deployment risks, maximize energy independence
7. Individual vs. District Geothermal:
 - Individual – peak load design by building; no energy sharing or recycling
 - District-style - peak load design for networked system; reduced by load profile diversity; energy sharing and waste heat recycling

- Network access to shared heat exchange resources: ground, water, solar, wastewater, waste heat and thermal storage
8. Jerry shared various scenarios regarding a proposed 348-acre area of Brighton, where the geothermal energy potential is thought to be 209 at 150 feet and 697 at 500 feet, measured in Borefield Tons/Acre. Heating load is estimated at 160-209 Dt and Geothermal at 369-1,200,000 Dt.
 9. Thermal Highways have several configurations, including hairpin, perimeter (run-around) and linked districts on a central primary loop.
 10. Parking Lot Solar PV-T Energy potential in this area is thought to be electricity at 0.5 MW/acre and thermal at 372 tons/acre. Heating load is estimated at 160-209 Dt, Solar thermal at 104,000 Dt, Heat Pump Load at 10.6 GWh, and Solar PV at 55.5GWh.
 11. Integrated Plug and Play electric thermal Energy Systems are thought to be an optimal solution because they are non-polluting; enable load balancing; recycle waste energy; lower the peak system load; enable shared energy resources; require less borehole storage; reduce GHG emissions; less wasted energy; lower energy use and system cost; increases system performance; enables more affordable energy and grid-enabled management; real-time monitoring and intelligent control; supports demand/response; enables load shifting and energy independence; is modular, scalable, expandable, fault tolerant and survivable; and enables asset location flexibility and technology upgrades.
 12. Anna Cerosaletti presented on the youth movement Color Your School Green, which is a parallel group to the community Color (your community) Green. The Climate Solutions Accelerator provides a toolkit to groups, which is designed to help environmental clubs flourish. The mission is to engage students using the toolkit and network to build strong high school environmental clubs that have a greater impact on their school, district, and community with an emphasis on climate solutions.
 13. The organization is designed to empower students to implement changes to address the climate crisis within their schools and communities. This objective is accomplished by meeting high school students and staff “where they are at” in their environmental club journey by giving them the resources to achieve their goals.
 14. The toolkit includes elements such as navigating a school system, environmental justice, contacts and connections and a meeting plan and template for lobbying politicians. Link is <https://www.climategfl.org/color-your-school-green>
 15. Website also contains information and overviews on how to create a Sustainability Plan.
 16. Green Games is an event sponsored by the organization from September 26 through October 22 to introduce students to climate crisis related issues and solutions while challenging them and their school districts to take action. The first week of Green Games is RYCL Climate Week and begins on September 26, with different areas of awareness and challenges scheduled for each day.

Public Forum:

No correspondence or requests to speak were received.

Next meeting is Thursday, October 7 at 3:30 via Zoom. Link will be sent one week prior.

Motion to adjourn by Matt O'Connor; second by Sue Hughes-Smith. Meeting adjourned at 5:10 PM.