

The logo for Tompkins County Climate Protection Initiative (CPI) features the letters 'TC' in a green, sans-serif font above a stylized green and yellow circular graphic. To the right of this graphic, the letters 'CPI' are written in a large, bold, green, sans-serif font. Further to the right, the words 'Tompkins County' and 'Climate Protection Initiative' are stacked in a smaller, green, sans-serif font.

# Tompkins County Climate Protection Initiative

**Minutes – Friday, August 30, 2024**  
**Video Conference**  
**9 am to 11 am**

**Attending:** Alice Green, Dave Bradley, Tom Hirasuna, Brian Eden, Jen Myers, Sheila Out, Paul Moore, Marie McRae, Gina Cassidy, Leonardo Vargas Mendez, Don Montanye, Karim Beers, Chris Skawski, Terry Carroll, Hailley Delisle, Christine O'Malley, Aimee Dailey, Dawn Montanye, Gerrie Wiley, Jack Wright, Janelle Bourgeois, Jerry Sheng, Joe Wilson, Rod Howe, Chuck Geisler, Roxanne Marino, Rosie Bostian, Nick Goldsmith, Dan Lamb, Guillermo Metz, Peter Bardaglio

## **Climate Change in the News – Peter Bardaglio**

*In keeping with past tradition, if it's August, then it's time for a review of the year's climate change developments. Extreme weather events have become so frequent in the past few years that the climate crisis has become climate chaos. This year was no exception.*

- Atmospheric CO<sub>2</sub> hit another record high in 2024
  - In May, Mauna Loa Observatory recorded average concentration of atmospheric CO<sub>2</sub> at 426.9 ppm, compared to 315 ppm in 1958
  - Increase of 2.9 ppm since May 2023 – fifth-largest annual increase and 50% higher than pre-industrial levels
  - CO<sub>2</sub> levels were consistently around 280 ppm for almost 6,000 years of human civilization
- Rate of increase in emissions over past 60 years more than 100 times faster than when last ice age ended
- Annual emissions have increased every decade since mid-20th century – from 11 billion tons of CO<sub>2</sub> per year in 1960s to over 36 billion tons in 2022
- Now in territory not seen for more than 3 million years – at that time global surface temperature was 4.5-7.2°F warmer than during pre-industrial era
- Despite decades of negotiation, global community unable to significantly slow, let alone reverse, annual increases in atmospheric CO<sub>2</sub> levels
- July 2024 warmest July in 174-year NOAA record – January to July global surface temperature was 2.30°F above 20thC average, making it the warmest such period on record
- Global surface temperatures last month 2.18°F above 20<sup>th</sup>-century average – very likely 2024 will be among top 5-warmest years on record
- 14th consecutive month of record-high global temperatures, which itself is a record
- As Van Jones points out, we have three alternative futures: *Eco-Apocalypse*, *Eco-Apartheid*, or *Eco-Equity*

- Currently on road to Eco-Apocalypse – Eco-Apartheid just a speed bump on way to Eco-Apocalypse
- Only viable option is Eco-Equity
- UN Secretary-General António Guterres in Tonga earlier this week: “Only by limiting warming to 1.5°C do we have a fighting chance of preventing the irreversible collapse of the Greenland and West Antarctic ice sheets – and the catastrophes that accompany them.”
- Means cutting global emissions 43% compared to 2019 levels by 2030 & 60% by 2035 – but last year global emissions rose 1%
- “Surging seas are coming for us all” – global sea levels rising at rates unprecedented in the past 3,000 years
- Climate apartheid: According to IEA report last year, top 10% of world’s carbon emitters responsible for almost 50% of global greenhouse gas emissions
- Ndileka Mandela, Nelson Mandela’s granddaughter: “Apartheid has been exported into the heart of the entire global system” (Dec. 2023)
- Half global population lives on less than \$6.85 a day – smallest carbon footprint on our planet but the most climate-vulnerable.
- People in Africa, South Asia, South and Central America, and small island developing states are 15 times more likely to die from climate-related disasters
- Most sobering climate change news of year: Earth exceeded 1.5°C warming every month for entire year
  - Every month has broken temperature record of previous month for past 12 months
  - Streak was in part driven by El Niño – but planet will probably continue to heat up even as El Niño ends
- With rises of 1.5°C, world's climate edges closer to multiple tipping points that could set off runaway climate change
- Copernicus, EU Climate Program: "The last 12 months have broken records like never before — caused primarily by our greenhouse gas emissions and an added boost from the El Niño event in the tropical Pacific“
- Runner up: Climate change slowing earth rotation
  - Climate change so massive it’s slowing down planet – causing days to get longer
  - As ice sheets melt, water moves towards equator, making Earth wider at its center
  - Similar to how an ice skater slows down when they spread their arms out
- Changes are small – only milliseconds a day – but could slow down even more if emissions remain high
- Lengthening of days could cause problems for global time-keeping, GPS satellites, and digital infrastructure
- Report: “In barely 200 years, we will have altered the Earth’s climate system so much that we are witnessing its impact on the very way Earth spins”

- Recent extreme weather events once again called attention to accelerating climate crisis
- Record-breaking heatwave in West Africa in mid-February – region’s heat index hit 50°C (122°F)
- Nigeria and Ghana issued warnings about high temperature, but many other affected countries did not prepare for dangerous heat
- Ivory Coast carpenter: “When it’s this hot, mixed with humidity, time stands still.”
- High temperatures and lack of rain damaged crops – cocoa factories in Ivory Coast and Ghana stopped or reduced processing because they could not afford to buy the beans
- Attribution scientists in WWA report: Heatwave would have happened less than once a century in world without climate crisis – now once-a-decade event
- Greece has experienced one of its hottest and driest summers on record
- Wildfire broke out around Athens at height of Greece’s tourist season two weeks ago, forcing mass evacuations
- Wildfires common in Greece this time of year, but they’re becoming more frequent and intense as weather gets hotter and drier due to climate change
- Last year, Greece experienced largest wildfires ever recorded within European Union
- Deadly monsoon floods left millions stranded in Bangladesh earlier this week
- Floods triggered by torrential rains have swamped large parts of low-lying Bangladesh
- At least 23 people have been killed and 5.7 million affected by floods in eastern part of nation
- Around 470,000 people have taken refuge in 3,500 shelters in the flood-hit districts, where around 650 medical teams on ground to provide treatment
- Vast areas of land are submerged, posing a significant threat to crops if floodwaters linger for an extended period
- Water levels receding very slowly, so flood conditions could persist if monsoon rains continue
- Path to net zero narrow but achievable -- IEA released update of its 2021 report on “Net Zero by 2050” in Sept. 2023
  - By 2035, emissions need to decline by 80% in advanced economies and 60% in emerging market and developing economies compared to 2022 level
  - Ramping up renewables, improving energy efficiency, cutting methane emissions, and increasing electrification can deliver more than 80% of emissions reductions needed
  - Cutting methane emissions from energy sector by 75% by 2030 one of least expensive opportunities to limit global warming in near term
  - World needs to increase its current \$1.8 trillion investment in clean energy to about \$4.5 trillion a year by early 2030s

- How do Americans view climate change in 2024?
- Yale annual survey, “Climate Change in the American Mind”: Seven in ten Americans (70%) think global warming is happening
- 13% of Americans think global warming is not happening – 17% say they don’t know if global warming is happening
- 52% of Americans are either “extremely” or “very” sure global warming is happening
- 7% are “extremely” or “very” sure global warming isn’t happening
- 59% of Americans understand global warming is mostly human-caused – 29% think it’s due mostly to natural changes in environment
- 50% of Americans say they have personally experienced effects of global warming – 49% of Americans say they haven’t experienced effects
- 64% of Americans say they are at least “somewhat worried” about global warming
- 28% of Americans say they are “very worried” about global warming – has trended upward since survey began in 2008
- 2 in 3 Americans (66%) say they “rarely” or “never” discuss global warming with family and friends – 1 in 3 (34%) say they discuss global warming “occasionally” or “often”
- Pew Research Center Survey, May-June 2024: Two-thirds (66%) of Republicans say prices for everyday goods would get worse if U.S. greatly reduced fossil fuel energy production while increasing production from renewable sources
- Washington Post-UMD Poll, July 2023: 74% of Americans say they’ve experienced extremely hot days in past 5 years
- Only 35% of Reps/Lean Reps say climate change major factor – 85% of Dems/Lean Dems say so
- Partisan divide persists with other extreme weather events – droughts severe storms, flood, and wildfires
- Republican views have changed little since 2019, while Democratic percentage has increased from 79% to 85%
- About same share (65%) say transition would increase home heating and cooling costs
- 59% expect reliability of electrical grid would get worse in major shift toward renewable energy
- Ready for some good news?
- NY Times in May: Thanks to rapid build-out of wind and solar power plants, esp. in China, global emissions from the power sector set to decline this year
- Nov. 2023 report from Climate Analytics: 70% chance emissions start falling in 2024 if current clean technology growth trends continue & some progress made to cut non-CO<sub>2</sub> emissions
- Would make 2023 the year of peak emissions
- Continued explosive growth of wind and solar would push fossil fuels out of power sector, leading to peak coal in 2023 and peak gas in 2024

- Peaking emissions on its own, however, not enough to limit warming to 1.5°C
- Global peak must be followed by a sharp and sustained fall in emissions over following years to meet Paris Agreement goal
- Success of the IRA two years on: Political picture complicated but IRA has accomplished much of what it set out to do
- Since its passage in 2022, incentives provided by law helped drive \$332 billion in new investments in clean energy and transportation
- Almost all of that private investments, generated by \$48 billion in federal tax credits
- Investments in clean energy and transportation accounted for 44% of all investment growth in fixed assets like plants, property and equipment in U.S. economy last year
- Batteries and electric vehicles big winners – \$114 billion in new projects in those industries have been announced
- Will have significant impact on reducing GHG emissions
- The global renewables landscape: Global power mix will be transformed by 2028
- IEA executive director: “The transition to clean energy is happening worldwide and it’s unstoppable”
- Over next five years, several renewable energy milestones are expected to be achieved:
  - In 2024, wind and solar PV together generate more electricity than hydropower
  - In 2025, renewables surpass coal to become largest source of electricity generation.
  - Wind and solar PV each surpass nuclear electricity generation in 2025 and 2026 respectively
  - In 2028, renewable energy sources account for over 42% of global electricity generation, with share of wind and solar PV doubling to 25%
- Naomi Klein, 2018: “Change or be changed, right? And what we mean by that is that climate change, if we don't change course, if we don't change our political and economic system, is going to change everything about our physical world.”
- In short, one way or the other, things are going to change – can we change the way we go about our business fast enough to hold off runaway climate catastrophe?

#### Q&A

- Dawn Montanye: In current presidential race, we’re not hearing much talk from the Democratic candidates, Harris and Walz – they understand it’s not resonating with people and not high on their list of issue priorities
- Equity dimension is very important, though – making energy transition equitable is key part of work we do at Cooperative Extension
- Peter: As you say, it’s not just about making the energy transition, it’s how we make it and who we leave behind or don’t leave behind
- Regarding presidential race: not talking about climate change and energy change is mostly tactical decision, not strategic one – based on Harris-Walz record, clear that they will make these priority if they win election

- Important to recognize there's level of climate apartheid not just between nations but within nations, between different social classes within nations
- Gina Cassidy: We need to recognize we can't simply focus on how climate change affects people – also need to pay attention to how its impact on plants and animals
- Even if we don't care that much about plants or animals, we need to understand the extent to which our fate is intertwined with theirs – good example is issue of how climate change is influencing pollinators and process of pollination and how that affects our food system
- Also explosion of ticks and mosquitos and diseases caused by those vectors – also rabies more common in warmer weather
- Brian Eden: “Make polluters pay” seems to be a theme that resonates – rather than the general public paying for the damage inflicted by climate change, make the folks who are responsible for climate change pay at least some of that
- Fossil fuel industry is pushing back on the CLCPA and recommendations from Climate Action Council – Governor is backing off because of this pressure
- Several economic studies carried out for Scoping Plan that showed there would be positive economic and health benefits from carrying out energy transition
- Affordability has become chief vehicle for defeating progressive ideas

**Climate Change, the Energy Transition, and Local Municipalities** – Dan Lamb  
*Dan Lamb is the deputy supervisor for the Town of Dryden, senior lecturer at Cornell's Brooks School of Public Policy, and a member of the TCCPI steering committee. Dan provided an overview of how the Town of Dryden has tackled the issues of climate change and the energy transition, providing a model for other local municipalities.*

- Many of things we've talked about today are what drove me to get into public service 30 years ago
- Lot of great ideas at state and federal levels but we don't often get to see those ideas advance – can be very frustrating
- Worked for federal government for 16 years as congressional aide – also worked for state and county government
- Most action I've seen on climate has been at local level
- Not going to be a lot of federal activity in next few years unless it's incentive-based – won't be sweeping federal legislation we've seen in earlier years because of recent US Supreme Court decisions such as the Chevron case
- Found 8 years I've worked in town government to be more rewarding when it comes to environmental policy – what we've been able to do in Dryden is significant
- Tools available in local government: zoning, planning, permitting, moratoriums, courts, and government programs
- Topics that can be addressed include infrastructure, municipal broadband, solar siting, development, multi-use trails, and intergovernmental relations
- Dryden is town that stopped fracking in NYS
- We got out front early on and we were vocal – ban enacted through our zoning law withstood legal challenges and drove industry away
- We didn't stop there – dawn of new era in Dryden

- Climate Smart Community since 2019 along with 290 other communities representing one-third of state population have partnered with state government to build resilient, low carbon future
- Dryden secured bronze-level status, one of 31 in NY – has enabled town to secure several hundred thousand dollars in state funding for local renewable energy projects and improvements in infrastructure that have helped to reduce GHG emissions
- Town approached in 2017 by Distributed Sun, founded by Cornell graduate – wanted to establish two sites, 18 MW and 10 MW
- Required special use permit from town involving full review and permitting by town board -- had more solar than any other town in NY for several years
- Took lot of effort but brought massive benefits to local residents
- NYS PSC approved remote net metering in 2011 and community distributed generation in 2015, which allowed groups to buy in on solar farm
- Took election to bring about support for this change – have to be able to sell your ideas to public
- Dryden negotiated PILOT at \$6,000 per MW before Tompkins IDA established countywide rate of \$4,200-\$4,600 per MW
- Over 30-year life cycle of projects estimated \$7 million paid to local taxing authorities
  - Schools: 73%
  - County: 21%
  - Town: 6%
- Dryden school board opposed projects but never turned down any of money
- To bring more dollars to local community, Sales Tax Offset (STO) created by state legislature to allow towns to tax state forest lands
- With STO, town raises its property tax rate and county lowers theirs – county retains proportional sales tax revenue previously shared with town
- Solar and new tax rates on forest lands generated \$60,000/year of new revenue for town – increases every year
- Residents also received 10% savings on electricity bills instead of usual 5%
- Important for public to understand solar can't go everywhere – existing electrical grid limits where it can be sited
- Has to be fairly close to existing transmission lines because costs \$1 million plus to upgrade grid
- Long after projects permitted town was in court to defend its process – ended up at state's highest court – legal challenges intense so you have to have proper representation
- Lessons learned:
  - All projects require tradeoffs, which can be argued and litigated
  - Government has clear role in review, deliberation, and education
  - Few projects get sited in NYS because of challenges
  - Solar projects led to referendum-style town election in 2017
  - Feelings got hurt
  - NYS siting laws have since changed, reducing local control
- Recently had another proposed solar project at Caswell Rd. landfill that failed – NYSERDA realize it would be too expensive to connect farm to grid

- But another solar project on Morris Rd. that is going forward
- Once you get people in town to support a big project or two, it's easier to do other projects
- As result of successes in fighting fracking and building solar, we gained credibility to carry out other important projects related to sustainability
- Nothing more important at any level of government than sustainability, how you enter intergenerational compact that sets up government programs to carry on and benefit public
- Dryden Rail Trail, for example, addressed issue of growing traffic in town by giving people another way to get across town, especially to Cornell
- Secured state and federal funding that totaled close to \$4 million
- Provides people with recreational resource as well as alternative to using cars for commuting
- Dryden Fiber another important recent project – first and only town owned and operated internet service in NY – over 100 subscribers at this point and expect to be well over 200 by end of year
- Received big boost via state in June when we received grant of almost \$9 million from American Recovery Plan, big Covid recovery program
- With affordable, reliable internet, we reduced need for people to commute as much because people could work from home productively – both a sustainability and equity issue
- Task forces and committees in town allow for more inclusive governance
- Most recently we've had to deal with issue of crypto-mining – downstate individual purchased property in town with intent to establish crypto-mining
- Town put moratorium in place to keep project from going forward while we take a serious and thoughtful look over next 18 months to see if crypto-mining and data processing are compatible with our comprehensive plan
- Very energy intensive and could prevent us from carrying out other economic development initiatives such as affordable housing
- Have found ourselves back in court again defending our town actions
- Another issue that came up involved Bolger Station, a large gas compression station in Dryden – they wanted to do an upgrade a few years ago
- We were concerned about what that would mean for increasing carbon emissions – required a very quick study
- Dan reached out to several experts and tried to understand the situation – with input from Mothers Out Front, we decided to use our land use authority and permitting process to get a national energy company to meet some local needs
- If they wanted to upgrade the station, we wanted them to use more modern equipment that would reduce what EPA calls criteria pollutants such as benzene and perchloroethylene that cause asthma, cancer, and other serious illnesses in return for our building permit
- We made it clear to them that we had this authority in a letter we sent in 2018 to put them on notice that they were going to need a special use permit
- Resulted in a \$60 million upgrade that dramatically reduced these pollutants and increased tax revenue for the town and school district
- Project took a lot of community communication and public meetings – lots of skepticism about whether we could secure these concessions



- Reductions independently verified – now they’re required to produce annual reports about the emissions and show up in person before the Town Board
- We also addressed the issue of affordable housing in Dryden – we wanted the right kind of housing in right kind of places
- Working with developers, we made clear what our priorities are – now when they show up they know that they need to avoid using fossil fuels in their housing – important contribution to sustainability of community
- Comprehensive planning not required in NYS but it’s strongly encouraged – we began our process the year before last while Covid taking place – presented its own challenges when it came to getting valid community input
- Couldn’t put together an acceptable plan without this input – you have to develop it in public with a lot of meetings and surveys – some of meetings very difficult
- Once it’s in place, it will guide community for next 15-20 years – our last comprehensive plan was in 2005 so it was time
- 2005 plan did not include section on energy or sustainability – energy only mentioned twice in our 2005 plan
- In our updated plan (Dryden 2045) energy mentioned 99 times and we have whole section energy and sustainability with climate action plan built into it
- It’s way to justify a lot of our decision making going forward – long and difficult process but it’s worth it
- Now in midst of changing our zoning based on comprehensive plan – allows us to make sure we’re incentivizing good land use
- Prioritizing housing in way that moves us away from single-family lot
- Important to make sure you have the right people involved – making sure we’re using our appointment authority to get broad representation and not be insular – need to have different viewpoints to make sure you get community buy-in

#### Q & A

- Peter: Makes a great case study – you should write it up for submission to Journal of Public Administration or something along those lines
- Dan said he plans to do this – hopes he conveyed message that you can accomplish a lot at local level – state and federal governments not going to get us change we’re looking for
- Incremental change is usually the way things move forward – not a switch you can flip – more like dial
- Peter: You showed incrementalism can accomplish a lot but you have to be persistent and smart
- Dan: You also have to have good people around you – perhaps the most important thing we do is to attract good people to work with us as staff and as volunteers on our advisory boards
- If you want to hold on tight to power and you want control and credit, you’re not going to get good things done
- Chuck Geisler: Thanks so much for everything you’ve accomplished, Dan – eight years of your energy has gone a long ways
- I remember when we were working on fracking we collaborated a great deal with Ulysses and other towns – do we continue to collaborate with other towns in county

- Dan: Definitely, and with county as well – key example of our collaboration is with Dryden Fiber – worked with Caroline on this project – thought our chances of securing state funding would go up if we entered into this kind of intermunicipal partnership – turned out to be true
- Another example of partnership took place with emergency management services reform – working with other towns through Council of Government to bring about reform in how we provide ambulance service
- Roxanne Marino: Collaboration during fracking involved Dryden, Ulysses, and Town of Ithaca – drew up memorandum of understanding that really galvanized coalitions of citizens across towns – eventually got more than 50 municipalities in NYS to pass resolutions in support of home rule
- Dan: Really important to work across municipal lines