
**Governor's Council on Climate Change (GC3)
MITIGATION SUBCOMMITTEE MEETING
MEETING MINUTES**

Meeting Date: December 14, 2020

Meeting Time: 2:00 - 4:30 pm

Meeting Location: Zoom

RECORDING

<https://ctdeep.zoom.us/rec/share/4Efg9BflurtXcRDY6XNPA1ufGL6AsmPpt4Dyjq7Ely0gl-04vz8SkgMRs2TdB-yG.cpLod9JFe4-xRqr3?startTime=1607972648000>

ATTENDANCE

Attendee	Title	Organization	Present
Claire Colman	Undersecretary, Secretary's Designee	Office of Policy & Management	√
Frogard Ryan	Executive Director	The Nature Conservancy	√
Kevin Grigg	President and CEO	Fuss & O'Neill	√
Noel Petra	Deputy Commissioner	Department of Administrative Services	√
Bryan Garcia	Chief Executive Officer & President	Connecticut Green Bank	√
Debi Geyer	VP Environmental Health & Safety and Corporate Sustainability	Stanley Black and Decker	√
Aziz Dehkan	Executive Director	CT Roundtable on Climate and Jobs	√
Garrett Eucalitto	Deputy Commissioner	Department of Transportation	√
Lori Mathieu	Public Health Section Chief	Connecticut Department of Public Health	√
Alexandra Daum	Deputy Commissioner/ Commissioner's Designee	Department of Economic & Community Development	√
James O' Donnell	Executive Director	UConn, Connecticut Institute for Resilience & Climate Adaptation	√
Matthew Fulda	Executive Director	Connecticut Metropolitan Council of Governments	√
Patrick Brown	Chief Technology Architect	The Hartford	√
Katie Dykes	Commissioner	Department of Energy and Environmental Protection	√
Rebecca French	Director of Office of Climate Planning	Connecticut Department of Energy and Environmental Protection	√
Phone Participant 1			√
Phone Participant 2			√
Phone Participant 3			√
Diane Lauricella			√
Michael Li (Michael Li)			√
Alec Shub			√
Peter Picone			√
Alanis Allen			√
Brian Thompson			√
Marina Capraro			√

Raymond Albrecht			√
Bruce Dasinger			√
Amy Paterson			√
Laura Cahn			√
Elias Petersen			√
Michele Helou			√
Patricia Taylor			√
Lynn Towill			√
Diane Hoffman			√
Cary Lynch			√
Francia Alvarez			√
Harry White			√
Susan Hibbard			√
Maureen Nicholson			√
Eric Hammerling			√
Thomas Worthley			√
Tyler Anderson			√
Ann Zitkus			√
Jeff Howard			√
Michael Malmrose			√
Rick Newton			√
Rudy Sturk			√
Laura Bozzi			√
Frank Cervo			√
Kayleigh Royston			√
Jean Cronin			√
Nathan Frohling			√
Connor Rockett			√
Kathy Fay			√
Weezie Nuara			√
Katie Lund			√
Susan Masino			√
Chelsea Gazillo			√
Bernard Pelletier			√
Robert Schmitt			√
Susan Quincy			√
Ralph Jones			√
Huan Ngo			√
George Kral			√
Robert Bell			√
Denise Savageau			√
Kaitlyn Cyr			√
Aicha Woods			√
Chris Donnelly			√
Cheryl Cappiali			√
Paul Hearn			√

Randall Anway			√
Jill Oberlander			√
Karen Schnitzer			√
Melissa Kops			√
Holly Lalime			√
Bud McAllister			√
Andrew Droney			√
Peter Millman			√
Rep. David Michel			√
James Albis			√
lynne bonnett			√
JoAnn Messina			√
Gary Gregory			√
Carol Youell			√
David Bingham			√
Lori Brown (Emily Alexander)			√
Samantha Dynowski			√
Anji Seth			√
Mary Pelletier			√
Catherine Diviney			√
melinda tuhus			√
Mike Morrissey			√
CHERYL DUNSON			√
Mary Mushinsky			√
Martha Page			√
Mark Bolduc			√
Diane Mas			√
Anthony Cherolis			√
Kate Donatelli			√
Lisa Hayden			√
Kimberly Stoner			√
Kris Kuhn			√
Bonnie Potocki			√
Mary-Michelle (Mikey) Hirschhoff			√
Shelley Green			√
Thomas Olson			√
Ally Cheynes			√
Anthony Cherolis			√
Iris Kaminski			√
Steven Wallett			√
Edith Pestana			√
Eric Hansen			√
Lilian Ruiz			√

AGENDA & NOTES

Welcome and Announcements

Commissioner Katie Dykes welcomed and open the meeting.

Rebecca listed all of the attending members of the GC3 Mitigation Subcommittee.

Commissioner Dykes then outlined the plan for the meeting which includes:

- Discussion of Progress on Mitigation working group recommendations
- Discussions of Working and Natural Lands working group recommendations related to Mitigation

Council members will discuss a Word document with each recommendation as well as a brief summary of each recommendation. The subcommittee will move forward based on consensus.

The GC3 is split into two subcommittees: The Adaptation and Resilience Subcommittee and the Mitigation Subcommittee. The Subcommittees are meeting to review the recommendations of the working group reports. This meeting is for the Mitigation Subcommittee. The subcommittees will be focusing on reviewing recommendations that will begin to be implemented in the near-term: early 2021 to early 2022.

Reviewing Recommendation Summary List

(DRAFT FOR DISCUSSION SHARED WITH SUBCOMMITTEE AHEAD OF THE MEETING ATTACHED TO MINUTES)

Cross Sector

1. Expand consumer education and awareness efforts to increase the uptake of zero- and low- carbon technology measures.

- Frogard Ryan: With regard to 1b) considering the incorporation of co-benefits to the EJ community is consistent with the Nature Conservancy's priority and we're very much in favor
- Katie Dykes: These recommendations align with others coming from other working groups. There is duplication in different places, and we can look for ways to harmonize any duplication after January.
- Kevin Griggs: Adaptation group came across recommendations focused on education and it's interesting to note the amount of recommendations going to the governor in January focused on education.
- James O'Donnell: Education and outreach are overlapping, but thinks everybody is in support of a need to inform the public and to do so at an early age
- Katie Dykes: These comments highlight some things we want to talk about when we come together as the full GC3

2. Strengthen alignment between state decision making and GHG emissions- reduction goals.

- Frogard Ryan: For the Nature Conservancy it's a major priority and we are advocating for language that ensures DEEP had or will have legal authority to take into account the state's energy and emissions. Particularly when making decisions

on permits or other measures that pertain to new energy sources or related infrastructure

- Katie Dykes: The framing of this recommendation reflects our view of how to start with partnerships to gather best practices and best metrics for how to do that type of measurement and evaluation. This recommendation is framed in a way to ensure that we can have a discussion around the approach.
- Deb Geyer: Having goals and means to measure is how you succeed so we are fully supportive

Buildings

3. Accelerate adoption of building thermal energy conservation improvements

- Katie Dykes: 3b) is reframed a little here from how it was stated in the working group report
- Frogard Ryan: On b) we would love to see the term Lockbox included on this one
- Katie Dykes: The recommendation called for a lockbox requiring a constitutional amendment to implement that. This one is framed without that language in it. Given the focus on a recommendation to the governor, it's emphasizing actions that the administration can take, or the legislature can take. A constitutional amendment is no in the scope of this document, but I respect the desire for folks to pursue it. For the purposes of near-term actions being identified and recommended for January, my view is that this language would have consensus support. There was also an executive order that was recommended in the working group.
- Katie Dykes: c) has been a real priority for DEEP as an equity proceeding going on right now with respect to the administration of the energy efficiency program. And we're excited about having the GC3 advance this recommendation in the January report because it aligns to a priority for our department. There's a huge opportunity in braiding together some of the program delivery for energy efficiency with other public health measures and dollars that that may be available for reducing health impacts.
- Lori Mathieu: Absolutely support this item, and look forward to working together
- Katie Dykes: In regard to e) nice to see the working group prioritization on this measure which I think we have built a stronger foundation through Executive Order 1 and our greener gov CT efforts and efforts to really institutionalize this across all agencies.
- Frogard Ryan: Nature Conservancy happy to see this added
- George Kral: Is Energy Development Zones a term of art or is there something more specific behind the terminology
- Katie Dykes: I interpreted it as a more flexible term
- Rebecca French: There's further details in the working group report, but I believe the intention was a district where you could encourage further clean energy development.

- Kevin Griggs: There seems to be a fair amount of overlap between some of these recommendations. Is there going to be an attempt to consolidate this before it goes to the governor?
- Katie Dykes: We can look into doing that. Some of the overlap may be a result of old recommendations from the 2018 report and new recommendations coming together
- Michele Helou: I know the Department of Housing made a comment on (i) that we support this measure in combination with some of the other measures in terms of making amendments to the international building code in order to meet this effort.

4. Expand consumer education and awareness efforts to increase uptake of zero- and low-carbon technology.

- James O'Donnell: Building code changes and incentives to improve efficiencies should be thought about in terms of what additional benefits one can get in terms of risk reduction in areas where that's a problem. I'm not sure how to put that language in, but I think we should try and think about it. Item d) and c) in relation to real estate professionals. Some real estate agencies are beginning to include flood risk in their marketing and at least an understanding of what it is and how it will change. And similarly, retrofitting existing housing for energy inefficiencies which is flood prone seems to invite thinking about how you could also be more resilient to floods
- Lori Mathieu: For d) I was thinking that there is quite a bit of overlap, but I really like it and thinking about the issue with heat islands and maybe that can be an area of focus for vulnerable populations and heat islands. And pursuing a strategic approach to better performance in those areas.
- James O'Donnell: In response to Lori, that is a good point. I was focused on flooding, but adaptation is broader than that. My broader point is that if we're talking about retrofitting buildings for climate change mitigation, adaptation should be included.
- Katie Dykes: In order to capture that, this is something we may want to look at when we bring together both the adaptation and mitigation pieces. We can flag it for discussion. I don't know that we're going to capture every place where there is overlap or duplication by the 18th, but I think we can have some discussions about those points in the 18th. And work with the council on ways wo prioritize places where we want to address that.

5. Transition building fossil fuel thermal loads to efficient renewable thermal technologies.

- Frogard Ryan: What we would like to see included is some end dates for the expansion of the gas grid as well as new gas installations on the existing grid
- Lori Mathieu: On the water side we're thinking a lot about water conservations and when they're for new development. I think this is a great place to put everything together. We're talking about thermal technology, but also you know the water standard. In the water planning council, we're actually talking about lowering some of the standards when it comes to water efficiency. To call in line where other states

are going or have been for a while. A side note is that water flow and energy reduction may impact water quality so it's something to just be mindful of. Lack of flow and lower temperatures breeds bacteria, legionella, and some other nasty things that come along with stagnant water.

6. **Improve training and technical capacity of workforce**

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Electricity

7. **Commit at least 50 megawatts of demand reduction per year to the ISO- New England forward capacity market.**

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8. **Achieve at least 66 percent zero-carbon electricity generation by 2030**

- Lori Mathieu: These are large projects and wondering if all of this is doable. So this is nine years to do a lot. In relation to e) there is push back for putting solar anywhere and is difficult to do.
- Katie Dykes: In response to Lori, we have a good track record in deploying these levels with some of the more mature, behind-the-meter programs being developed. DEEP is going to be issuing an integrated resource plan for our electric supply in draft this week where we walk through in detail how these quantities can be achieved going forward. A great credit to PURA, they've been lifting a lot of important dockers to help keep these behind-the-meter programs on track
- Lori: (In regard to e) When we say other natural land there's a lot of land that is owned by water companies and others that take up 17% of our state. So where these large scale solar projects are put, there should just be a good deal of thought and strategy behind it.
- Katie Dykes: e) might get further refinement as we bring together with some of the working and natural lands recommendations. It is a recommendation that aligns to the at group as well. We want to make sure that that we're harmonizing our goals around deployment of resources and affordable way that's also harmonize with our priorities for land use and protecting forest and agricultural lands.
- Frogard Ryan: (g) Offshore wind is a big priority for us and we feel it needs to be prioritized because it's critical to meet our future electric needs in the state and also is a key source for energy particularly during the winter
- Katie Dykes: We expect by 2025 with the existing procurement s that the state has done of offshore wind that approximately 20% of our energy supply will be coming from offshore wind facilities and by that time and 2025 same date, including the offshore wind 91% of our energy supply will be contracted to nuclear or renewable resources.

9. **Optimize grid management strategies to reduce carbon emissions**

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Non-energy

10. **Implement the short-lived climate pollutant reduction strategies outlined in the U.S. Climate Alliance Short Lived Climate Pollution Challenge to Action Roadmap.**
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11. **Incorporate climate-change mitigation in Plans of Conservation and Development (POCD).**
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12. **Promote responsible and just materials management.**
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Transportation

13. **Maintain increasing fuel economy and low- and zero-emission standards.**
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14. **Expand EV charging network to ensure consumer confidence and reduce range anxiety.**
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15. **Develop a State fleet transportation Lead by Example program that sets annual emissions-reduction targets and enables increasing adoption of zero-emission vehicles**
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16. **Update the Electric Vehicle Roadmap for Connecticut to establish specific ZEV targets that align with the ZEV MOU and the 2030 target**
 - Katie Dykes: DEEP has done this to some extent in the EV roadmap, but not on an annual basis so this is something DEEP was happy to see interest in this. I know we had this for light duty vehicles in the EV roadmap, but not for medium and heavy duty so there is an opportunity there.
17. **Advance initiatives that reduce vehicle miles traveled (VMT) by 2030**
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18. **Develop sustainable funding for transportation electrification and transit infrastructure.**
 - Katie Dykes: (a) Connecticut has been collaborating with about a dozen other states and D.C. on evaluating program design for this type of initiative including the model in the face abilities and the benefits that accrue from applying a cap and invest model to petroleum and petroleum fuels including gasoline and off-road diesel. It's really modeled on the Regional Greenhouse Gas Initiative which is the cap and invest program which Connecticut is a charter member. That has proven really successful on the electric sector. So, this would apply similarly to the transportation sector and would yield revenues to be invested in measures that can reduce emissions in the transportation sector.
19. **Advance initiatives that increase adoption of zero-emission medium- and heavy-duty vehicle.**
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20. **Reduce emissions from freight transportation**
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Moving on to discussion of mitigation recommendations from Working and Natural Lands.

Rebecca French: Describes that the Working and Natural Lands Group crossed over between both the adaptation and resilience subcommittee and the mitigation subcommittee. We tried to divide up the recommendations which is challenging because almost everything in working and natural lands is at the nexus of mitigation and adaptation and resilience. We will only be reviewing recommendations squarely in the mitigation category. The Working and Natural Lands Group had subgroups, and I did some consolidation of the recommendations across sub-groups

1. **Evaluate usable models to reliably monitor and report on carbon sinks related to working and natural lands**
 - Katie Dykes: I think this one is really important. There's a lot of potential and interest around carbon credits and other types of mechanisms to help value carbon positive practices. Activating those types of mechanisms requires having a way to really monitor and report about carbon sinks associated with working and natural lands. As we think about what we really want to move forward as an urgent action for 2021, I think this is a valuable one
 - James O'Donnell: The Science subcommittee discussed this at length, and we support it, but we think there's considerable research necessary to quantify some of these rates and inventories. It is not a trivial thing.
2. **Evaluate approaches and best practices for Siting of Renewable Energy Infrastructure to Avoid Loss of Forests, Farmland and Other Sensitive Lands.**
 - Katie Dykes: This is the recommendation that we highlighted on the mitigation report that we probably want to bring in alignment. I think the concepts are similar.
3. **Increase Mitigation of greenhouse gas from Connecticut's Forests: Keep Forests as Forests**
 - Katie Dykes: I think these are really framed for action in 2021 around assessing the feasibility of various policies that can be adopted to support this recommendation.
 - James O'Donnell: Is it not like a subset of valuing natural lands for mitigation purposes that would be one way of implementing such a strategy, but it's not the only one, Also managing forests has many cool benefits but also managing parks and recreational areas has equal per unit of carbon sequestration capacity, but other kinds of co-benefits associated with recreation, shade, runoff reduction, etc. My point is I don't think it's wise to focus on the No Loss of Forests policy when a much broader more effective policy statement could do that and more.
 - Frogard Ryan: Making a general comment: cross-referencing various recommendations for this report would be helpful. I was glad to hear the No Net Loss of forests recommendation as well and look forward to talking about that more.
 - Rebecca: In the final council report we'll have them (adaptation and mitigation recs) all together
 - Lori Mathieu: Looking at the comments in the chat I wholeheartedly agree about urban forests because sometimes those are just forgotten about. They can be really critical. And I think 3c is really important. With our 169 towns Planning and Zoning

inland wetlands commissions people volunteer boards. I think providing the tools that municipal government needs is really important. How to save the most amount of vegetation that you can. You just see people ripping down the trees for the sake of ripping them down. I know our town could utilize it if we had more information it could be very helpful. So maybe there is an educational part here as well for municipal governments and municipal land use boards.

- James O'Donnell: I'd like to stress the point that the mitigation value of natural lands, marshes, forests, parks, etc. should be managed to maximize mitigation, and the no net loss of forest policy is one approach to that management goal, but I think we want to do the easy stuff obviously right away and maybe that's why so much attention is being paid to that particular statement, but more broadly I think we need to look for as much mitigation value with co-benefits associated with adaptation and economic development as possible. That's why I think this is a mitigation issue primarily.
- Lori Mathieu: In response to James, I would agree. Looking in the chat the comment is an important one. (3a) How many tracts of land do we have that remain in this 250 acre block. How many of those are left? Maybe that number is too high, maybe it should be 150, but I don't know. Has there been a GIS analysis of this and where are these tracts of lands? I imagine we're talking about private held property.
- Katie Dykes: DEEP just issued a forest action plan which has a lot of rich information about state forest lands and privately owned. We actually do have a lot of forest cover. Much of the acreage is held privately. We have programs in place that deal with engaging private forest landowners. (3a) I think is intended to say it is urgent for us to move this forward. There are things that need to be addressed, data to gather and look at best practices from other states to develop the best strategy for implementing this. So that's to undertake in 2021. And I think it provides good direction for undertaking that work.

4. Increase the adoption of on-farm energy production and reduce on farm energy usage.

Lori Mathieu: A general comment about the agriculture I like seeing it there and anything that can be done to help have our keep our farmers in business and have them be productive, reduce their energy usage and help them survive because I think that they are a big part of our strategy and anything that can be done to keep them moving along. And I think is a good thing.

Kevin Grigg: I believe the term leadership by example was raised in a prior document pertaining to reducing fleet emissions and it was kind of focused on the state and I think that the private sector needs to step up in the same manner as the state and organizations that do business with the state should be willing to sign on to some sort of agreement. Whether it's in good faith or enforceable that says that one of the conditions of doing work with the state says that we agreed to partner in reducing emission of our fleets, because obviously the private sector has many fleets as well. Rather than the public sector just carrying that burden in these recommendations. We should be talking about the responsibility of the private sector as well since we need to work in partnership to get this done.

Katie Dykes: That's a great comment Kevin and it really helps us in the delivery of public sector programs to know about companies that have prioritized sustainability and made those corporate commitments. There are lots of ways we can help those companies and help to enable those goals. For companies who have those goals to have robust programs that they can access to help them achieve them.

Public Comments

Francia Alvarez: My name is Francia Alvarez, and I'm on the board of the Greenwich Tree Conservancy. Connecticut DOT Metro North managed right of way along our urban transportation corridors, yet this public land is overlooked as a source for mitigating greenhouse gases. The existing clear-cutting policy reportedly to protect the canton electric poles and tracks from fallen trees has devastating effects on the communities within our coastal transportation corridor. These safety policies consider only one factor fallen trees and limbs. In fact, the safety policies have greater have created greater problems. I have submitted written comments that includes photos, the wanton removal of every tree eliminates the many existing benefits of wooded corridors for a possible risk. This November at our local riverside school housing children kindergarten through fifth grade metro north clear cut just a few feet from a basketball court and young children's play set. This will expose our children to future herbicide applications to prevent the regrowth that follows railroad clear cutting. In addition, due to climate change our cities and towns already have experienced extreme storm conditions along the coastal shoreline. Hence, the climate mitigation value our urban forests offer is disproportionately large and should be reflected in the level of protection. It is time we evaluate these right of way urban forests and change the law. We need legislation that will require notification to our local chief elected officials and tree wardens and a one month minimum before any non-emergency tree work can begin in the right of way. And Metro North must be required to walk the proposed sites with our local tree wardens to save trees that can be saved. As Conn DOT Metro North have not maintain these edge force, then they must offer mitigation resources to create buffer zones for planting new trees with the right trees in the right places to prevent transportation conflicts. The forest subgroup draft report discussed the importance of retaining large trees and settled landscapes and right of ways must be included as part of this group. The urban edge forests typically contain larger trees and therefore store more carbon per tree than an interior forest. I must also mention that the clear cutting in right of ways increases noise. Realtor.com recently added a new feature to its home listings, noise level. Let us not overlook the detrimental effects of noise on the value of our homes. Coastal cities and towns are the hardest hit with tree loss, the state needs to quantify the loss of trees in Conn DOT and Metro North I-95 road corridors using an urban tree canopy assessment, including a minimum of 20 years of data, taking us to 2020 to quantify the mitigation benefits trees provide. The Greenwich Tree Conservancy asked the GC3 to express our voices to protect and maintain our right of way tree assets and the environmental services that they provide. Thank you very much.

Kris Kuhn: I am Kris Kuhn, and I am a longstanding resident of Mystic, Connecticut. I followed the comprehensive work of the GC3, but my specific focus has been on fossil fuel concerns and the

proposed Killingly energy center, KEC, that is the reason I am here today. Thank you for the opportunity to speak. At one of the first GC3 Zoom meetings we were provided with a picture of Governor Lamont wearing a mask that read "science will win." The governor has relied increasingly on incoming scientific data, sought close collaboration with neighboring states and communicated important information to the public. He is achieving exemplary navigation of the COVID-19 pandemic. Contrast this Covid-19 response to climate science and fossil fuel policy in Connecticut. While there is important progress in the creation of renewable energy sources and decreasing energy demand our fossil fuel infrastructure continues to expand. Most glaring we are facing the imminent build out of the killingly energy center, KEC, a 650-megawatt natural gas power plant that is not needed at a cost of over \$600 million dollars. I need not speak to some things I have written here about how KEC would thwart the achievement of Governor Lamont's goals, that it is called a bridge fuel, and that Commissioner Dykes in 2019 declared that it is a fossil fuel, not a bridge fuel. I think it is interesting to note that at the current rate of technological advancement in carbon free energy generation and power storage. By the time of completion of its construction KEC could well be a toxic dinosaur. Furthermore, there's demonstrable evidence that Connecticut has no need for a new fossil fuel power plant electricity use in Connecticut has flattened in recent years, primarily due to increase efficiency. And ISO New England the electricity grid manager for six states actually reported an excess system capacity for 2018 of over 1000 megawatts, even without accounting from growing solar and wind contributions. Seeking a forward-looking perspective from the GC3 I was eager to set eyes on how the report of the electricity working group would address the matter of KEC. In chapter 4, electricity, on page 79 I found the text, "Connecticut soon will be home to the Killingly Energy Center," the text then focuses responsibility for the KEC on ISO New England and the Connecticut Siting Council. Honestly, I was shocked KEC is presented as a done deal. One glaring reason to object to this assertion is that there are outstanding permit applications with arguably substantive problems that still need to be aired in a public forum. It must be noted the chapter 4 text on KEC does read, "throughout development of this report stakeholders on the electricity team indicated their strong objections to this project because the plant will lock in decades of carbon emissions and will negatively impact the health and well-being the surrounding community." So, this is how the situation looks to me a claim of need for KEC is refutable, there are outstanding permit applications and stakeholders objected throughout. What is the origin of the text that presents KEC as a fait accompli? I don't know the answer. I know only to turn to Appendix one on page 98 members of the electricity team to pose the question. And I would refer you to that. It is extremely unfortunate that the administration preceding that of Governor Lamont left him a legacy of active expansion of natural gas and Connecticut. A correction course is more difficult to achieve. At this point, however, we have seen more and understand more. Worldwide environmental devastation now constitutes a climate emergency we recognize more clearly the harmful effects of methane produced from fracking and the magnitude of methane leaks from its production and transmission. Those devastating fires in California are ours, torrential rains and severe flooding along the Gulf coast, ours, breathtaking Arctic melting, it belongs to us. Ultimately, we are inextricably connected to each other. What can be said as reasons to allow KEC to go forward. It's already been authorized by the Connecticut Siting Council; the process is too far along. I join many others in saying no. Connecticut citizens need the GC3 to step up in support of Governor Lamont and the Connecticut legislators as well to say no to KEC. We want to live in a state where

science wins and climate policy is determined by what we know about the role of fossil fuels. Going forward with KEC would amount to climate denial as glaring as the COVID-19 denials seen in refusal by some during this pandemic to wear masks, or to observe social distancing. I believe that the GC3 and DEEP have a duty to act. Respectfully, I implore you to support Governor Lamont in every possible way to stop the Killingly fracked gas power plant.

Denise Savageau: My name is Denise Savageau and I'm the chair of the Connecticut Council on Soil and Water Conservation. I also serve on the working and Natural lands Wetlands subgroup. I wanted to speak today to talk about soils in particular, and the role they play in carbon sequestration and mitigation. Soils was lumped together with the agriculture group and although certainly soils are important to agriculture of soils is not limited to agriculture. Indeed, less than 20% of our landscape in Connecticut is in agriculture and on farmland, but all of our land resources and including our sub-aqueous land that underwater all has soils on it so it's really important for us to understand soils and the role in carbon sequestration. Particularly from the role that soils play, and carbon sequestration has to do with organic matter in the soil. So, our tidal wetlands inland wetland soils are really important when we're talking about mitigation. And similarly, our forest lands a lot of research has been done on mitigation on forest lands talks about the carbon sequestration in woody vegetation and above soils. But, indeed, a lot of the carbon sequestration in our forest is below the ground, in the soil ecosystem. And of course, it is in our prime and agricultural land. So, as we're talking about mitigation, we want to make sure that we talked about soils and we need to talk about it holistically. I strongly recommend that we do not just couple our discussion on soils with agriculture. Certainly, there's a big discussion there and the agricultural community needs to bring that up, but I want to make sure that we talked about soils in a more holistic context as I just discussed. Jim O'Donnell was right when we talked about working and natural lands and ecosystem services. There's a big overlap with all of the working and natural lands, whether you're talking about wetlands, forested acres, agricultural lands. There's a lot of benefits to all of these. So, we talked about those ecosystem services and we do need to look at all of those, not just the carbon sequestration side of that. One of the things I want to just bring up quickly is that in Connecticut, our soil conservation statutes, do not discuss soil health. 01:58:34 They only talk about soil in relationship to soil erosion and that is something that was you know came out of the dust bowl era. It's old tech terminology and it needs to be corrected. We need to update our soil conservation statute to include soil health. USDA is now looking at states that have soil health legislation on the books in terms of funding. So, if we want to continue to access funding from USDA, we need to be thinking of updating our soil conservation statute to include soil health. We can start with just changing that general statute section. Not including any programs, but basically changing the definitions on what we consider soil conservation and adding soil health in that definition. I've attached the proposed legislation in the chat, and I hope that you will consider this. It's an easy lift and it will have significant benefits to the state in terms of making sure that we are all working towards soil health and the many benefits, not just in terms of carbon sequestration. But all the ecosystem services that soil health provide from water quality to growing healthy food to maintaining water quality in our wetlands and rivers and streams. So please consider this. There's a lot to be talked about with a working in natural lands and a lot of this will come up. I know tomorrow, but I specifically wanted to mention this during the mitigation piece because of the

importance of soils in mitigation and we're talking, we're talking about all of the mitigation soils is the foundation for all of our working and natural lands.

Frank Cervo: I would just like to specifically highlight the work of the forest subgroup of the working and natural lands group. The report they put together is an excellent resource. And it's a really comprehensive document and I'm just really, really want to thank them all for that work, and I wanted to bring it to everyone's attention here today. And I specifically also just like encourage the group to focus on the role of forestry and active sustainable forest management as a mitigation strategy fighting climate change and you've done so in the recommendations that you outline today, and I really appreciate that.

Carol Youell: Today I'm representing the Yankee division of the Society of American foresters, often known as SAF, which is the professional association of the forestry community and southern New England and we respectively submit the following comments regarding the characterization of forests and carbon in the phase one final reports prepared by both the science and technology Working Group and the forest subgroup. We believe that there's contradictory information regarding force between the two reports. Our intent is to strongly encourage the thorough inclusion of science of the science associated with force and climate change in the subcommittee reports generated from the working group reports and in the overall GC3 process, we strongly urge the Members of both the mitigation and the adaptation resilient subcommittees and the full governor's Council to adopt the recommendation of the Forests subgroup report. The forest subgroup was charged solely with investigating Forest issues it consulted with a wide variety of forest experts including forest scientists, practicing foresters, forest-based conservation groups, and worked to assess the findings of the relevant science from the peer reviewed literature on forest carbon dynamics. And it produced a balanced report as a result. In contrast, the forest recommendations issued by the science and technology Working Group did not include consultation with a full range of course experts and reflects an incomplete understanding of the science of force and force carbon dynamics. Members of the Science and Technology Working Group have laudable experience within their fields of study, but that knowledge base does not include key aspects of forest science, forest management, or forest carbon dynamics. Unfortunately, this is evident within the report. Many statements in the report suggest a superficial understanding of the supporting scientific literature. This is especially true in support expressed for the concept of pro forestation, an unproven theory that asserts that the way to maximize climate change from forests is to stop all tree cutting. The report states pro forestation can maximize carbon storage and ecological instructional complexity, over time, but there's no evidence that was presented that supports this claim for Connecticut's forest type. Furthermore, pro forestation has not been demonstrated to be, as claimed in the reference journal article advocating for the practice, low cost, immediate or supportive of long-term resilience or long-term carbon storage by any of the broad spectrum of force climate science literature. It's a concept that requires more study, evaluation and comparison with other management alternatives over the wide variety of forest types and conditions found across our state and the nation. This needs to be done before it is recommended for adoption as a sole management strategy for public forests. Our forests provide an expansive array of services, benefits, habitats, and uses. Professional forest management has been practiced on public lands for

decades, generating multiple benefits and the diverse assortment of forest conditions that support a resilient landscape. Which is very critical and the ability of forests to adapt to climate change ceasing all forest management activities would ultimately result in a reduction of forests diversity. And therefore, a reduction in climate resilience and could leave forests more vulnerable to carbon loss due to disturbance. Active forest management can help to maximize forest carbon sequestration and storage under many forest conditions in our state. We agree that our few old growth forests remnants should remain in passive management due to the rarity, but measures such as invasive species control may be necessary. Otherwise, prior to making significant shifts in forestry practice, a careful evaluation on current forest conditions, future growth trajectories and management options using reliable carbon accounting methods, including assessments of other benefits and service and forestland is needed to determine what actions would be appropriate in each forest. The SAF and others are other foresters are planning a series of field force tours around Connecticut this spring to conduct more public outreach in terms of what goes on with forestry in Connecticut. And I'm sure you'll be hearing more about this. Thank you.

Anthony Cherolis: I have been more involved in the transportation working group, but in the forest and woodland side of things I wanted to just amplify the importance of, from an equity and environmental justice standpoint, the urban tree canopy and green infrastructure. The general issue that we find in our cities is that we don't have the funds to do anything with the plan, other than put it on the shelf and say it's nice. So, what we've been researching in the Hartford area is how to actually fund green infrastructure and meet the city's tree canopy goals, going from 25% to 35% of tree canopy in the next 15 years. Right now, we're likely losing percent of tree canopy rather than gaining due to extreme weather drought and changing weather and higher temperatures. So, the funding really isn't there to meet those goals and make the city more resilient and address the disparate impacts of climate change in vulnerable and overburdened communities. When we look at this we look for where is the money and the money that is most likely a good fit for green infrastructure and tree canopy in Hartford is the MDC stormwater contamination reduction funding that comes from user fees. It is almost 100% going to grey infrastructure in giant storm water storage tunnels, rather than green infrastructure and ground level projects that have co-benefits for community health, reduced air pollution and greenhouse gas emissions reduction as well as long term climate change resiliency in a population that's going to bear some of the most impacts with the least ability to respond. So, I just want to highlight that the dollar value is real. I think that the long-range contamination reduction plan NBC has put forth that gets approved by him by CT DEEP as around \$2 billion. We don't talk about those numbers very often, but even a 10% amount of that going to green infrastructure would be a sea change in the city of Hartford, and our budget to actually meet our tree canopy goals. So, I wanted to highlight that and not just talk about how great our plans are because they're great. We just don't have any money. Except the money is there. It's just being spent in ways that don't have co-benefits.

Lynne Bonnett: I'm commenting on the electricity sector and mostly through participation with the New Haven energy task force. Our concern in New Haven is that 70% of people rent and they have been left out of solar as a means of reducing their energy burden because of the fact that they rent. I understand that this state is committed to the community shared SOLAR PROGRAM. And I asked

that the Council consider when this program started what the current subscription rate is of low to moderate income renters is which is designed to help this population. And if there's any way to make it the program accountable to renters so that they have the same economic benefit that they would have if they were property owners putting solar on their own roof. And being able to net meter that energy produced that way. I honestly don't know the economic benefit of the community shared SOLAR PROGRAM, but I don't think it's equitable with what a property owner would experience through net metering off of their roof. The other thing I wanted to mention still in electricity sector is that New Haven is home to the Cross-Sound cable which sends I think 330 megawatts of power to Long Island every day. This cable was promised to be two-way so that Long Island could send us power and we could send Long Island power if they needed it. It has never been two way. It's always one way. It's always from Connecticut to Long Island. And if there is any way possible to explore to opportunity for Long Island to send Connecticut power during the wintertime when they don't have the air conditioning demand of everybody moving to Long Island for the summer as a possibility of an equitable distribution of our electrical resource. Thank you.

Mary Pelletier: I recommend revitalization and conservation in the North Branch Park River watershed and that is largely because there's a considerable number of trees along that waterway, and I've come to this conclusion after having spent 10 years on the MDC citizens advisory committee from 2004 to 2014 for the long-term control plan which Tony just mentioned. And I just want to say as much as we want to turn to the MDC and want them to do their work. There's been a lot of work from DEEP staff from the EPA and all these others and there's no doubt about it that we need to have money from that long term control plan. It would be nice if there was more focus on green infrastructure. But the real challenge in the city in the sector 20 years of looking at it is conserving those forests that already exist and not jamming a bicycle trail through them and cutting them down. Those are the forests that provide ecosystem service benefits. We really need to look at the transportation planning strategies and the amount of money that's put into transportation and really ask ourselves, especially after this pandemic, aren't we ready for walkable communities and in Connecticut, aren't we ready to minimize some of this highway commuter culture and put design first, design of our communities first, and conservation first. And again, I realize tree planning, everybody's into it right now, but conservation and stopping mowing is very critical, the woman who spoke about passive management of forests. I'm not sure all the details about forest management, but there is a growing problem of invasive at the shrub level and the ground vegetation level. And those are often urban design levels that need more attention more funding those smaller scale tributaries those smaller scale forests that are really being overlooked, but that's what your community, the majority of people live in cities in Connecticut and in the United States and in the world. And it's those small-scale strategies which merge nature in the city. We can't just assume the MDC is going to solve this problem for us. We've been working on it for a long time, they can help if DEEP asks them to work on a comprehensive plan and choose the North Branch and other urban-suburban riparian corridors as pilot project areas. For all of these because there is green buildings. There're substations there's brownfields there's last landscapes. There's urban communities or suburban communities. They're all in certain watersheds. And the high value watersheds and I think you guys have done a great job. And I want to thank you all for what you've done, and I want to say I look forward to seeing pilots that don't cancel out the recommendations

that you've all made because you've done a lot of great work but try to synthesize them and merge those recommendations so that there's a comprehensive an exponential benefit. I know we can all do it together. Thank you for again for all your good work.

Melinda Tuhus: I just wanted to read a paragraph from the report. Well, first of all I wanted to thank you for the opportunity and also to say how much I appreciate all the amazing hard work that so many people put into this. This is in the electricity sector. It says, "the capacity market administered by Independent System Operator New England (ISO NE) has driven over reliance on a single fuel natural gas that is neither sustainable from a reliability perspective, nor consistent with Connecticut's long-term goals. For example, Connecticut will soon be home to the Killingly Energy Center, a new natural gas fired power plant that will provide energy to the ISO New England service area. Even though Connecticut has committed to achieving 100% zero carbon energy by 2040, this goal alone does not necessarily bar construction of the new power plant, which will serve the entire ISO New England region. And was sited in Connecticut due to the state's significant natural gas pipeline infrastructure. The Connecticut Siting Council, which has the authority to prevent construction approve the developer's application for a certificate of environmental compatibility and public need in June 2019. Although Killingly will be significantly less polluting than the oil and coal fired power plants it replaces and help to meet the region's energy needs, it does not align with kinetic Connecticut's decarbonization policy objectives and its long asset life will make it challenging to meet the state's emissions reduction goals. Throughout development of this report stakeholders indicated their strong objection to this project. Because, at a time when Connecticut is emphasizing the urgency of decarbonizing the electricity grid. The plant will lock in decades of carbon emissions and will negatively impact the health and well-being of the surrounding community." The last sentence. I don't know if it's only representing the views of the opponents, it makes it sound like whoever wrote this kind of agreed with us, which is good that they did, but now it seems like we need a different ending. I don't know what coal and oil-fired power plants Killingly would replace my understanding is there are no oil-fired power plants of any size anyway. And the only coal fired-plant left is in Bridgeport, and it already has another fracked-gas power plant that just opened last year that's going to replace that one. So, I'm not sure what it's replacing and that seems to really weaken the argument for building in the first place and it just seems like this state and DEEP are passing the buck and blaming ISO New England for approving the plant and saying that they need the plant and Killingly. Governors or their designees in Rhode Island, New York and New Jersey have all recently canceled gas power plants and pipelines. It doesn't seem fair that Connecticut should bear the brunt for all of New England, just because we are already overburdened with gas infrastructure. I think that the state can still play a role that's the whole point. I wanted to sort of second what Kris Kuhn said earlier. And I work with a lot of young people and I just I can't fathom why we would build this plant. I feel like it would just contribute to destroying their future and even our future. But please consider these young people and please do not let this plant go forward. Thank you.

Bud McAllister: I'm in New London, and I just want to add on to what Melinda and the other woman talked about the Killingly Gas Plant. We don't need it and it would just be a big problem. We need to

get away from fossil fuel completely. Now, we don't have time to play around. Thank you for all the work you've done. You guys are doing a great job.

Rebecca French adjourns the meeting.

Chat Record

00:34:36 Mary Pelletier: Please clarify there is a need for science education, which is more precise than environmental outreach. Funding tends to (especially in cities) support management, rather than research of nature in cities. Management and "outreach" events are temporary.

00:35:39 Denise Savageau: Cross over 2 - need to balance with WNL and adaption/resiliency goals

00:38:35 Mary Pelletier: There needs to be increased measurement of nature urban areas. Currently water quality in minor tributaries in urban areas have not been measured. there is a need to measure water and forests within cities for ecosystem service benefits.

00:38:36 Bernard Pelletier: Thank you for highlighting "little b"

00:39:43 Susan Masino: In addition to efficiency, which is a priority, consider going forward there may be a lot of empty buildings available to retrofit and adapt due to altered work; these could me major opportunities for rapidly mobilizing housing and other community needs

00:39:56 Bernard Pelletier: Can the government issue and Exec Order for efficiency funds be preserved?

00:41:20 lynne bonnett: my screen is partially blocked?

00:41:21 Bryan Garcia: Thank you for that addition!

00:41:28 Denise Savageau: 3 b The funds can be used for more than buildings so perhaps need to expand beyond the thermal category.

00:42:38 Claire Coleman: Apologies I have to go to another meeting but hope to come back shortly afterward.

00:43:17 Bernard Pelletier: It is simple to start and progress can be made.... I think 80% of this can be done easily - DEEP and Acadia and GC3 have already started!!!

00:43:40 Patricia Taylor: EHHI is concerned about this language framing health hazards like asbestos, lead, and PCBs as "barriers" to efficiency upgrades, in 3c., as well in other working group reports. It is crucial not to reduce regulations or guidelines that may protect workers and residents as these hazards are removed.

00:43:49 lynne bonnett: I'm glad that you kept the word "barrier(s)" in the document

00:43:51 Mary Mushinsky: Fund is at risk when budget is stressed by increased covid needs and reduced revenues. You need some type of lockbox or trust fund set up away from legislative control.

00:43:57 Rebecca French CT DEEP: Sorry if there was some confusion, but to clarify for anyone...please note this is a meeting of the Mitigation Subcommittee. The Adaptation & Resilience Subcommittee is meeting tomorrow, Dec. 15 at 10:30am-12pm.

00:44:55 Melissa Kops: I find this language a to be muted - we need to move towards zero energy

00:45:49 Connor Rockett: With respect to 3d, adopting the 2021 International Building Code is also a powerful code update for reducing embodied carbon emissions

00:46:31 Rebecca French CT DEEP: Please sign up for verbal public comment by sending a private chat to Alanis Allen.

00:46:42 Rebecca French CT DEEP: All are welcome to use the chat at any time.

00:46:57 Chris Donnelly: Maybe it is yet to come, but so far the emphasis appears to be on energy efficient functioning of buildings but not necessarily energy and climate aware

construction of buildings. Energy and climate effective design and construction going forward should be on the list somewhere, I would think.

00:47:28 Mary Pelletier: Please consider recommending that the State require municipalities that receive state funding for schools (and other government buildings) adhere to LEED or other high-performance green energy/building standards.

00:49:33 Bernard Pelletier: EDZs are a proposed piece of legislation - but the focus was on LMI neighbors

00:49:52 Bernard Pelletier: Rebecca is correct

00:50:00 Cheryl Cappiali: i. is critical

00:50:52 Denise Savageau: 3h - Engage municipalities - Munis would benefit from CCA, distributed generation, moving toward a modern grid.

00:50:57 Bernard Pelletier: Commissioner Dykes is correct - it was hard to address 2018 and 2020 without some overlap

00:51:03 Eric Hammerling: Thanks for adding "nature-based solutions" (e.g. planting/maintaining trees, community green spaces/parks, etc.) to address heat island effects in 3h!

00:51:08 Mary Mushinsky: Some municipalities are not interested in seeking more energy efficiency and are not measuring their progress. Can we create a much stronger financial incentive for municipalities?

00:52:02 Amy Paterson, CLCC: h. Engage municipalities as allies, YES! Nature based solutions - dovetails well with funding recommendation from Forest Sub-Group and Financing Adaptation and Resilience Working Group to enable a municipal funding option via limited buyer's conveyance fee.

00:52:06 Anthony Cherolis: I noticed that CREC regional (magnet) schools seem to be building in locations that are next to impossible to walk or bike to. They are building these big-box magnet schools on green fields and farmlands in rural areas. Maybe schools should be only built near transit corridors, town centers, and as urban-infill.

<http://allfamoustogether.blogspot.com/2020/01/why-is-crec-building-schools-to.html>

00:52:12 Bernard Pelletier: Mary Mushinsky - you are correct - we hope to harness the active communities - but we can't ignore the ones that are not active

00:52:59 Chris Donnelly: Having looked at the whole list, I would suggest looking at 'retrofit' and 'new construction' as separate but related approaches, but sometimes with different techniques and technologies.

00:53:02 Randall Anway: that section g is a great opportunity to encourage collaborations. ghg issues are complex and solutions are not 'one size fits all'

00:54:23 Bernard Pelletier: 4 d. can be done by the Energy Concierge

00:55:27 Denise Savageau: Use of energy efficient/clean energy funds and Energize CT is a crossover issue. Not just for buildings e.g. car charging stations.

00:56:04 Bernard Pelletier: Mr O'Donnell is correct lots of the building mitigation recommendations are also Adaptation - risk reduction -

00:56:15 Anji Seth: Is there language later that talks about the interplay between mitigation and adaptation?

00:58:06 Cheryl Cappiali: 4. c. Real Estate professionals have been reluctant to disclose all of the flooding issues.

00:58:35 Randall Anway: 4d - co-benefit discussions could be quite helpful

00:58:45 Kathy Fay: Adaptation in urban areas would include residential safety during urban heat island effects and residential sites infiltrating stormwater as well as public sites.

00:59:57 Denise Savageau: I don't think the overlap is as problematic is not balancing and seeing the overlaps/synergies between Mitigation/adaption/resiliency/WNL ecosystem services.

01:01:00 Bernard Pelletier: That was the final recommendation...

01:01:14 Bernard Pelletier: after a study to verify it was feasible

01:03:21 Rebecca French CT DEEP: If you joined recently, this the GC3 Mitigation Subcommittee. GC3 members are welcome to unmute to join the discussion. All other attendees are asked to hold verbal comments for the public comment period at the end of the meeting. Please sign up for public comment by sending a private chat to Alanis Allen (find her name and click on it) and she will add your name to the public comment list. You are welcome to use the chat to write comments at any time.

01:03:47 Bernard Pelletier: Commissioner Dykes - that one is key - the study for the transition - we can't begin to shut down anything - until we know what is possible...

01:03:54 Samantha Dynowski: It is problematic that transition plan and end dates got removed.

01:03:59 Chris Donnelly: 5b somewhat covers part of what I mentioned earlier, with the exception on not also including energy efficient building materials. I am assuming that that is separate from an assessment of thermal technologies

01:04:12 Samantha Dynowski: Transition plan is critical for equity.

01:04:22 Bernard Pelletier: Thank you Commissioner!

01:04:29 Patricia Taylor: EHHI agrees it is extremely important to monitor air and water quality in real time, as these mitigation recommendations are adopted, and to make measurements available in real time to residents. Monitoring will not only protect public health but it will show co-benefits and progress, and provide feedback.

01:04:31 Mary Pelletier: Note that selection of a 'type' of pilot zone, that offers comprehensive synthesis of GC3 recommendations, would be beneficial. For example, urban riparian corridors watersheds include a spectrum of conditions: brownfield, floodplain parking lots, last landscapes, electrical sub-stations, environmental justice conditions, need for new green jobs, . . . yet are impacted by development policies in upstream communities, especially Bloomfield and West Hartford. Thus selecting implementation pilot zones that fuse both upstream suburban to downstream urban communities would facilitate greater collaboration between upstream (suburban exurban) and downstream (urban/inner city) communities for win-win-win solutions.

01:07:00 Mary Mushinsky: People who were already trained lost their jobs when the fund shut down. Important to keep existing trained workers on the job as well as train new workers.

01:11:21 Denise Savageau: We need to restore NET metering. The argument that lead to the change in net metering was flawed.

01:12:29 Kimberly Stoner: How will distributed solar be made available to low & moderate income communities?

01:12:33 Denise Savageau: Need to focus on modern grid and distributed generation not just centralized generations.

01:12:36 Mary Pelletier: There ought to be explicit recommendation that solar projects that a fair % receive state funding ought to be in urban areas, and be decentralized.

01:12:48 Karen Schnitzer: Yes, agree with e totally. So important to preserve our forest, agricultural and other natural lands. We should not be cutting down forests to put up solar.

01:13:13 Cheryl Cappiali: Yes, e.

01:13:56 Denise Savageau: Need to marry GC3 work with what is happening DEEP/PURA in terms of modern grid, CCA, and distributed generation

01:14:20 Bruce Dasinger: Three CT city governments have adopted Climate Emergency Resolutions (CER): New Britain, New Haven, and Middletown. Many municipalities in US and several nation states have enacted a CER. Confucius said "The beginning of wisdom is to call things by their proper names". There is a large gap between IPCC goals and action by nation states. Seems

like a passing a CER by CT legislature and Governor would serve well as a foundational document for goals of GC3.

01:14:21 Rep. David Michel (he/his/him): Yes Denise!

01:14:22 melinda tuhus: I also agree with e. It is critical to preserve trees, for many reasons including climate.

01:14:43 Cheryl Cappiali: Denise, YES

01:15:22 melinda tuhus: Yes, Bruce!

01:15:30 Diane Hoffman: Yes to E! Solar is critical in the correct locations! Solar does not belonging a forest!

01:15:31 Kimberly Stoner: There have been requests for the CT Siting Council to suspend approval of large solar arrays until standards for preserving prime farmland and forests are updated.

01:15:41 Bud McAllister Partners in Healthy Communities: If we keep cutting down trees for Solar we'll desrtoy our water supply

01:15:56 Bernard Pelletier: along with DISCOURAGING where possible on ag and forest - it can be ENCOURAGING on already degraded lands - eg. parking canopies

01:16:31 Randall Anway: 8e - another area to encourage local and connected collaborations and consider co benefits

01:16:50 Denise Savageau: Bernie - yes -need incentivize where is the proper locations

01:17:04 Diane Lauricella: Yesssss, Bernie!!!!

01:17:24 Bernard Pelletier: PACE is working on assessing Parking canopy capability and it very large - surprisingly large.

01:17:35 Thomas Worthley: Regarding e., in order to encourage developers to site their projects on brownfields, etc., the state needs to encourage financing of such sites. Banks don't want to lend money to purchase a brownfield site.

01:17:38 Diane Hoffman: Yes a moratorium would be a wise move.

01:17:49 Mary Mushinsky: It's not a win if large scale solar projects remove 12 acres of forest. Intact forests remove CO2 and cool urban areas. In Germany, solar is located on developed areas, roofs, roads, parking lots.

01:18:56 Denise Savageau: Requirement for green jobs should include requirement of local jobs. Many of the large scale solar projects brought in crews from out of state.

01:19:16 Karen Schnitzer: Yes, it makes sense to put solar on top of the buildings/parking lots/schools where people are and need the power, vs. putting the solar field far away on former farmland or former forest land.

01:19:39 Mark Bolduc: According to IEA projections, 50% of emission reductions will be from technologies that are not commercially available at this time. If that is the case, the focus should not just be on renewable technologies currently available as the only way to move forward to a zero carbon future. More research and development is needed on next generation nuclear, carbon capture and hydrogen technologies. Solar and wind will always have a problem with intermittency which will result in having fossil fuels sources as the backup for renewables. Battery technology will not be enough to backup renewables.

01:19:57 Diane Lauricella: denise. Yes, you are so right...often talked about, but rarely accomplished....

01:20:11 Rep. David Michel (he/his/him): If we do not impose strict offshore wind environmental standards, as the pile driving could very well threaten the marine eco system that very much PROTECTS us from climate change and rising temperatures.

01:22:47 Bud McAllister Partners in Healthy Communities: d needs to include natural gas\

01:25:46 Rep. David Michel (he/his/him): That same eco system is responsible for huge carbon absorpion, the phytoplankton is hugely responsible for that carbon absorption, oxygen

production and feeding the zooplankton. Those sea forests are maintained by keystone species like the whales..etc.. it is all interconnected. The whales themselves represent 7 to 10k trees in co2 absorption..the oceans are the climate regulators, so fighting climate change also means to protect this oceans.

01:26:27 Mary Mushinsky: Alignment with State Plan of C&D should include financial incentives and disincentives in state grants and bonding.

01:26:30 Bruce Dasinger: What are CT plans for long term use of advanced nuclear energy in CT. Millstone supplies 40+ % of CT electrical energy and has a limit on lifespan.

01:26:46 Denise Savageau: 12 - need bullet on waste reduction not just recycling eg banning single use plastics

01:27:03 Patricia Taylor: EHHI appreciates the focus on waste reduction in Item #12.

01:28:33 Mary Pelletier: Municipal Plans of conservation & Development need increased emphasis on CONSERVATION. Moreover, Plan of C&D alignment with conservation and GC3 goals ought to be funded and monitored. Many municipalities are brushing aside citizen value of land conservation due to their interest in raising revenue through "infill, infill, infill." Unfortunately elimination of the last landscapes in cities not only diminishes ecosystem services that support community health, elimination of open space in high-density urban areas can further reduce real estate values - as citizens tired of advocating for conservation choose to move away.

01:30:11 Kimberly Stoner: What about e-bikes?

01:30:57 Mary Mushinsky: EV's need more charging stations. Some charging stations need repairs; some hosts cannot pay for repairs.

01:31:42 Kimberly Stoner: Also need clear communication about the type of charging stations. Not all EVs can use all charging stations.

01:32:25 Amy Paterson, CLCC: With POCDs being advisory in nature, and thus not always followed, I agree with Rep. Mushinsky that financial incentives and disincentives in state grants and bonding would be worth exploring to enhance climate mitigation strategies.

01:32:49 Kimberly Stoner: Very important to go ahead with TCI and make sure benefits go to low & moderate income communities.

01:33:27 Denise Savageau: Transportation 17-18 - need to make sure that mass transit is flexible for all workers. Not just 9-5 business community. Will remain under-utilized until it addresses needs of working class and in particular women that often are balancing work and family.

01:34:21 Mary Mushinsky: Year 2050 is too far away.

01:35:04 Patricia Taylor: #19 and 20 will produce hefty health co-benefits because of the reduction of diesel fumes in vulnerable communities where asthma rates are high. Real time air quality monitoring will show the improvements.

01:36:21 Mary Mushinsky: Electric school buses need legislative change: contracts need to be changed from 5 years to 10 years to cover front end costs.

01:37:40 melinda tuhus: Below is the wording from the report about the proposed fracked gas plant in Killingly:

01:37:45 Karen Schnitzer: I am concerned about trucks. It is all very nice to implement initiatives, but how can you be sure people will comply? Think about the recent news about truck owners altering their trucks so they get better mileage, but also pollute so much more. Also, what about the practice of new 18-wheelers installing old engines? There should be a way to prevent these go-arounds.

01:38:54 melinda tuhus: The capacity market administered by Independent System Operator New England (ISO-NE) has driven over-reliance on a single fuel — natural gas — that is neither sustainable from a reliability perspective nor consistent with Connecticut's long-term goals.

For example, Connecticut will soon be home to the Killingly Energy Center, a new natural-gas-fired power plant that will provide energy to the ISO-New England service area. Even though Connecticut has committed to achieving 100 percent zero-carbon energy by 2040, this goal alone does not necessarily bar construction of the new power plant, which will serve the entire ISO-New England region and was sited in Connecticut due to the state's significant natural gas pipeline infrastructure. The Connecticut Siting Council, which has the authority to prevent construction, approved the developer's application for a Certificate of Environmental Compatibility and Public Need in June 2019. Although Killingly will be significantly less polluting than the oil- and coal-fired power plants,

01:39:54 Mary Pelletier: Funding for transportation ought to need a plan that supports the evolution of walkable communities (15 minute car-free communities). At this time there does not seem to be a clear hierarchy of the most efficient public transportation for different types of needs. For example, would funding for 24/7 ride-shares and community cars be more efficient in urban-suburban neighborhoods than buses? Prioritizing support for specific types of public investment in transportation based on context would not eliminate trains, buses, and highways, yet would prioritize funding for trains between population hubs (such as between downtown Hartford and the Bradley International Airport). Closing urban streets to cars, even if only on weekends, would equitably benefit car-free citizens.

01:41:03 Patrick Brown: Apologies, but I need to drop for a 3:30 meeting. Thanks for all of the hard work on this!

01:42:09 Alanis Allen: GC3 Adaptation & Resilience Subcommittee

December 15, 2020

10:30 am – 12:00 pm

Register in advance for this meeting:

<https://ctdeep.zoom.us/join/9876543210>

01:43:28 melinda tuhus: This seems like the state and DEEP are passing the buck and blaming ISO-New England for approving the plant in Killingly, yet it also seems the report agrees with the negative impacts that opponents have been pointing out. Governors or their designees in RI, NY and NJ have all recently cancelled gas power plants and pipelines. It doesn't seem fair that CT should bear the brunt for all of New England just because we are already over-burdened with gas infrastructure. Please deny the final permit and kill the Killingly plant!

01:43:37 Samantha Dynowski: Thank you all for the work that has been put into this by volunteers, advocates, and staff. I have a conflict and cannot stay for the public comment period, but want to express disappointment that a transition plan from fossil fuels and end dates have been removed from this report. The reason stated was that these were not consensus items. My understanding is that the gas companies did not agree, and I wouldn't expect them to. I hope this group will reconsider these recommendations as they are critically important for an orderly and equitable transition to renewables.

01:44:01 Mary Pelletier: For Working and Natural Lands # 1 please add as well as "urban-suburban riparian corridors and open spaces",

01:44:53 CHERYL DUNSON: Item 3 Reducing emissions is critical ongoing work for DEEP. In the meantime, the emissions capture is being undermined by DOT's extensive clear-cutting along our transportation corridors.

01:45:10 Kimberly Stoner: Item 2 - important to recognize the importance of urban trees in addition to forests

01:45:14 Ally Cheynes: Goal should be 100% of cores.

01:45:54 Mary Pelletier: Once again, please emphasize the need to include conservation of forests in urban-suburban areas, especially with a priority along riparian corridors where trees can survive in indigenous forests and cycle through full phases of growth and decay

01:46:11 Mary Pelletier: yes Not Net Loss of Forests

01:46:45 Eric Hammerling, CFPA: Thanks for bringing up the No Net Loss of Forest webinar on Thursday, Rebecca!

01:47:33 Chris Donnelly: With regards to urban trees - this is where the definition of 'forest' becomes important - are urban forests considered in this use of the word? Probably not - which means that urban forests and their role in mitigation should be cited specifically.

01:47:52 Ally Cheynes: A massive, immediate initiative to greatly address the C problem is to ban logging in the state's forests. Private lands can voluntarily follow.

01:48:09 Patricia Taylor: Wastewater monitoring will be an important health safeguard if the state opens up farms to anaerobic digestion facilities as one of the renewable energy production opportunities represented in Item #4.

01:48:10 Mary Mushinsky: We are losing forests along rivers and the remaining small forests in urban areas (ex. Hamden). Need more than a statewide forest goal. Need to recognize forest value in more urbanized corridors.

01:48:24 Ann Zitkus: - suggest a compensation system for forestland owners for carbon credits and water quality protection ecosystem services; utilize study done by Linda Tomasso showing that preserving forestland, including purchase, is most cost-effective way of decreasing carbon emissions.

01:48:27 Denise Savageau: The ecosystem services of WNL should be intergrated into all Mitigation and Adaptation strategies

01:48:49 CHERYL DUNSON: Wholeheartedly agree with Chris' observation that urban forest should be cited specifically

01:48:57 Diane Lauricella: Yes, agree Denise S. and Mary M.!

01:49:06 Ally Cheynes: Every DEEP log job should have to consider C value in carbon markets. We need to stop the giveaway of the forests in the public trust.

01:49:24 Mary Pelletier: Once again the value of urban forests - especially MATURE forests (which tend to be along riparian corridors) to provide critical ecosystem service benefits needs to be stated

01:50:19 JoAnn Messina: Yes the Urban Forest often gets overlooked and they are so important for our more populated areas.

01:50:21 Karen Schnitzer: If you are concentrating on forests over 250 acres, are you throwing smaller forests under the bus? Are you more likely to allow them to be lost to development? Even small forests are important to birds and insects...

01:50:52 Bud McAllister Partners in Healthy Communities: We need Regional Planing

01:50:57 Harry White: State roadside tree management is grossly carbon positive and contributes to heat island effects.

01:50:58 Denise Savageau: WNL #3 should include not only road right of ways but utility right of ways.

01:51:39 Denise Savageau: Soil Health legislation
<https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:8a4e6270-5ba4-4e03-bcd0-a6051c1be90c>

01:52:17 Rick Newton: 3a - how many core forests >250 acres are there in CT? 250 seems too high

01:52:22 Kimberly Stoner: Yes - all utility rights of way should also have best management practices. There is a website about management of rights of way on the website of the CT Land Conservation Council

01:52:37 Denise Savageau: Agree with Jim. No net loss of wetlands, no loss of prime farmland soils etc

01:52:52 Ally Cheynes: No net loss of forests is primarily greenwashing. True protection from logging maximizes mitigation.

01:53:22 Mary Mushinsky: Need to reward landowners for leaving forested buffers along waterways. May need to pay them through forestry tax credits.

01:54:00 Bud McAllister Partners in Healthy Communities: R.I Rural Lands Coalition is focusing on 40 acres

01:54:09 Anji Seth: Carbon density of forests is as important as forest coverage.

01:54:15 Patricia Taylor: Agree with James O'Donnell.

01:54:49 Chris Donnelly: I am wondering about the use of the word 'protection'. Keeping forests as forests, and protecting forests lands, should include well managed forests. I am concerned that the concept will be misconstrued without further discuss of what protection is intended to mean in this sense.

01:55:03 Mary Pelletier: The focus on funding tree planting is overlooking the considerable benefits of MATURE trees and forests. There are many people (including Planning & Zoning Commissions that also double as the Wetland Commissioners) allow planting a few trees as mitigation clear cutting a mature trees/forest a few blocks away.

01:56:04 Jeff Howard (DEEP): The GC3 webinar that was mentioned: "No Net Loss of Forest" Policy – Advice from Maryland and New Jersey
Thursday December 17, 2020 Noon – 1:00PM EST
Registration required: https://ctdeep.zoom.us/meeting/register/tJIsf-uvqzIrEtdcKCob6gd_GB8hcSxAE69J

01:56:08 Amy Paterson, CLCC: Agree again, Mary. We have a corporate tax credit available to incentivize donation of/bargain sales for open space conservation, but no analogous state program for individuals. (Federal income tax deduction program is available.)

01:56:15 Gary Gregory: Protection of forest does not mean no logging or cutting trees. Ask California

01:56:17 Frank Cervo: Thank you for recommending the No Net Loss of Forest Policy, which will have a tremendous positive impact!

01:56:52 Anthony Cherolis: Increasing canopy in urban areas is really important for equity and environmental justice. I think I saw that in the plan. City of Hartford is aiming to increase canopy from 25% to 35% by 2035. That would catch Hartford up with New Haven's tree canopy coverage. All cities will be challenged with tree loss and canopy replacement (and building) with climate change, increasing temps, and droughts causing mature tree loss. We're not staffed or funded for reaching that goal. Right now, we're lucky to keep up with taking down trees that are dying, and doing some planting. We need a lot more focus on tree planting and green infrastructure funds (MDC stormwater funds would work great) to increase tree canopy, reduce impereable pavement, and increase climate resiliency in over burdened communities.

01:56:58 Eric Hammerling, CFPA: According to the GIS analysis of UConn CLEAR (which is included in the Forests Sub-Group report) suggests there is ~500,000 acres of large core forests (as of 2015). Large core in the report, I believe, is defined as 250+ acres.

01:56:59 Ally Cheynes: Protection means protection from logging as advanced in dozens of peer-reviewed papers. Again, state lands, MDC focus

01:57:05 Lisa Hayden: Reinforces the need for updated statewide GIS open space layer for CT that identifies conservation lands protected by numerous land trusts, public and private in order to better identify opportunities for conserving large forest cores, rare habitat and other ecologically high-priority lands for protection.

01:57:43 Bud McAllister Partners in Healthy Communities: YES!!!

01:57:53 Eric Hammerling, CFPA: "Protection," "forest," and other terms are also defined in the Forests report.

01:58:26 Harry White: *Small-scale* on-farm energy is key as it aligns with trends to deindustrialize farming.

01:58:43 Shelley Green: There are family forest programs emerging in New England that make natural climate solutions (in this case, carbon benefits of forests) feasible even in states like CT with relatively small forest parcels.

01:59:58 Ann Zitkus: suggest promoting low carbon farming; composting with capturing of methane

02:00:02 Susan Masino: support for local systems can support farms and reduce transportation costs and offer mitigation. Also eating healthy non-commodity foods is associated with measurable health benefits including mental health.

02:00:40 Thomas Worthley: There is a GIS analysis of core forests at UConn's CLEAR web site. Most core forest areas are a combination of public and private land, large and small parcels, some protected, some not.

02:01:16 Kimberly Stoner: There was considerable work in the Ag/Soils group on the benefits of cover crops and reduced tillage on increasing soil organic matter

02:02:21 Bud McAllister Partners in Healthy Communities: can we go back to screen sharing

02:02:57 Gary Gregory: The Governors Citing Council is requiring forest to be cut down to make way for solar farms. See Old Lyme, East Lyme

02:03:02 David Bingham: PA 490 has worked well to remove some of the tax burden on forest land owners. But the act is limited to larger parcels. To achieve "no net forest loss" we need to lower the tax pressure that results in subdivision of forest land. we should include smaller forest plots in this program.

02:04:24 Bernard Pelletier: rebecca you can stop screen share

02:04:32 Ally Cheynes: Some towns have conservation analog to PA490 that allows tax benefits to extend down to 5 acres. A fully local lift, no state PILOT.

02:07:08 Kimberly Stoner: Gary Gregory - the CT Siting Council has many forest and farmland sites on the docket, including the Gaylord Mountain site in Hamden

02:08:24 Ally Cheynes: Siting Council just OK'd 16ac solar on farmland in Bristol. Need new siting council members.

02:09:00 Thomas Worthley: With respect to roadside and power ROW management please see www.stormwise.uconn.edu

02:09:31 Bud McAllister Partners in Healthy Communities: Thank you Kris Kuhn

02:09:44 Kimberly Stoner: Thank you Kris Kuhn!

02:10:41 Gary Gregory: Are you taking the loss of 1000mega wates

02:12:00 Diane Hoffman: Thank you Kris! KEC must be stopped!

02:12:07 Ally Cheynes: Thank you Thomas Worthley for taking on this huge issue.

02:12:20 Patricia Taylor: Thank you Kris Kuhn!

02:12:43 Thomas Worthley: Solar developments also involve a willing buyer and willing seller of the land. If the solar developer does not buy the land, the seller might still want to sell it. What is their next choice?

02:12:47 Gary Gregory: Millstone will be shutting down in a few years. - 1000 mega watts. Are you factoring that into your calculations?

02:13:14 Peter Picone: Currently applying for PA 490 requires landowner to wait until the October new tax listing of a particular town. Landowner should be able to apply to PA 490 anytime of the 12 months of the year and town should be required to act on the PA 490 application in 30 days. This eliminates the hardship of paying taxes on a parcel of land until October sometimes waiting and paying high taxes at a closing on the property. This tax could be significantly high for the new owner especially heirs of a property. Also, forested property should be able to passed on to heirs without a tax ...rather just like you can pass on a vehicle to a relative so should forestland. Upon sale to a non-heir then forest land can be taxed appropriately.

02:13:22 Melissa Kops: I have to jump off - but I wanted to say that to meet our ghg emission reduction goals we need to commit to building zero energy buildings now. CT should join other jurisdictions in committing to building new government funded buildings to zero energy standards. In addition we should be developing a stretch code that steps up to zero energy by 2025. Zero Energy is possible now and at little to no additional cost.

02:14:06 David Bingham: Agree Killingly plant should be stopped. We now know we must move away from fossil fuels

02:14:37 Karen Schnitzer: Environmental justice means to stop siting oil refineries, and other polluting industries from being sited in the poor areas of cities and towns. Maybe it also means to stop siting natural gas plants in CT just because we already have the infrastructure...If other states can reject it, so can we.

02:14:57 Mary Pelletier: It is important to note that analysis of tree canopy in the City of Hartford has focused on street trees. While there is a pressing need to restore neighborhood street trees, the most robust healthy forests within the city are located along the riparian corridors or the largest parks. Both parks and riparian forests are not protected from development of athletic fields and other recreational amenities, which require that large mature trees are cleared in order to reduce perceived and real risks from falling limbs and trees. There has not been comprehensive research/documentation of the # of trees, and the ecosystem service benefits of trees (including trees that can decay in place) along riparian corridor as well as the forests in all the parks. Robust mature forests, that provide the greatest ecosystem service benefits need to be protected in urban and high-density suburban areas. Let's do both, plant street trees + conserve mature forests on riparian corridors.

02:16:06 Gary Gregory: Keney Park , Hartford Ct 693 acre

02:17:59 Susan Masino: Soil is the foundation of everything thank you for emphasizing this Denise. Soil health and soil carbon are both important.

02:21:40 Mary Mushinsky: 1. CT goal for GHG reduction is too modest and too far away, when compared to the remaining time available for bringing climate change under control and protecting our population.

02:22:39 Ally Cheynes: Comment against proforestation is extraordinarily dishonest. It is simply the no-management option.

02:23:16 Ally Cheynes: The peer-reviewed literature is full of papers showing native, no-cut strategy maximizes C sequestration.

02:23:42 Mary Mushinsky: 2. EV goal for trucking fleet is too low and too far away, compared to the remaining time available to protect against climate change.

02:24:19 Mary Pelletier: yes, the 693 acres of Keney Park, is a significant robust forest within the City of Hartford, which includes last landscapes around Gully Brook and around Meadow Brook. Let's invest funding in helping citizens who live in the neighborhood study the many benefits of that forest. For example, given that Keney Park was established in 1894, the trees/forests that have returned to that landscape are most likely genetically related to pre-European settlement trees, unlike the cultivars that are being planted. A municipal policy that minimizes mowing, and set aside no mow zones could allow indigenous saplings to emerge (volunteer) - rather than purchase of a cultivar from outside of the area. A recent NYTimes Magazine article covers the "Social Life of Forests" which emphasizes research that has reveal ways in which trees with forests "cooperate" even among different tree species.

02:24:29 Mary Mushinsky: 3. It is necessary to phase out fossil fuels, not license new sources.

02:24:39 Ally Cheynes: The claims of people whose living is dependent on killing trees should be carefully tested.

02:24:43 Frank Cervo: Well said Carol, thank you!

02:25:45 Mary Pelletier: It would also be helpful to insist that funding for tree planting include funding for maintenance of the street trees planted, as well as funding for citizens to monitor and study the trees planted.

02:25:57 Thomas Worthley: Thank you, Carol Youell.

02:26:29 Lori Mathieu: Carol thank you for your comments!

02:26:33 Mary Mushinsky: 4. CT should provide financial incentive for good land use practices, including: forest cover, buffers along waterways, urban trees, municipal participation in energy efficiency.

02:26:41 Gary Gregory: I am looking around my living room and I see wood floors and lots of wood furniture and the frame of the house is wood. What do you replace that material with??

02:28:30 Eric Hammerling, CFPA: Well said, Tony!

02:28:58 Thomas Worthley: To Gary Gregory - the replacement materials exist, but they are very carbon-intensive and not renewable. Plastic anyone? Congratulations for storing so much carbon long-term.

02:29:19 Katie Dykes: I apologize, I have to go to another meeting now but I appreciate all of the comments and will follow up with Rebecca on the comments I missed. Thank you all for being with us today. - Katie Dykes

02:30:05 Mary Mushinsky: 5. CT needs to protect energy conservation funds by isolating them from legislative raids. This will protect the program and keep the trained workers on their task of reducing energy demand and saving money for homeowners, renters and businesses.

02:31:48 Ally Cheynes: Key papers showing that no-management maximizes C sequestration: Nunery and Keeton 2010, Thom et al. 2019, Hanberry et al, 2015, Stephenson et al. 2014, Curtis and Gough 2018, and plenty more.

02:32:05 Anthony Cherolis: Here's the MDC Long Term Control Plan. It gets approved by CT DEEP. There were many public comments during the process recommending increased investment in green infrastructure, tree planting, and ground level mitigation. Those public comments were ignored and the plan is almost entirely planning their spending on giant contaminated storm water storage tunnels and sewage lining projects. If even 10% of the MDC \$2 billion long term budget was on tree planting and green infrastructure (including maintenance staffing), it would be a game changer with massive equity and environmental justice co-benefits. Sadly the grey infrastructure focus increases ghg emissions, rather than reducing ghg emissions. <https://themdc.org/long-term-control-plan-update/>

02:32:51 Ally Cheynes: Gary Gregory - I have read nothing in Sci/Tech WG report that says ban logging. That's what DEEP and SAF want you to believe so that they can maintain control of the land.

02:34:06 Susan Masino: Just to clarify, proforestation came out of climate science and ecology - along with a recognition that protecting some areas for nature is essential. Proforestation is letting some suitable forests grow, a minority of the landscape. It works in parallel with active management and good forestry. It is happening in National Parks and the Adirondacks, etc. The benefits are quantified in the paper - carbon, species diversity, fewer invasives, etc. . Thanks for your interest in this.

02:34:13 Peter Picone: create a tax incentive for water companies to put all their forest lands (tens of thousands of acres) into conservation easements to protect forestland thus ensuring water quality and forest protection. Many of the forest lands that water companies own were acquired at pennies on the dollar back in the day of water supply protection and water supply creation . Land that now provides quality drinking water should be protected for future generations and as everlasting carbon sequestration areas.

02:35:01 Ann Zitkus: suggest requiring carbon emission caps in order to promote use of low-carbon and carbon-storing concrete (decreases carbon by 50% compared to "regular"

concrete). Low carbon concrete is now technologically available and cost comparable to other concrete.

02:35:56 Kathy Fay: Lynne Bonnet's comments are on target; there is a great deal of opportunity for distributed local solar generation for true community shared solar that can achieve for renters parity with the savings realizable by homeowners. This sort of community shared solar supports the development of microgrids and other essential improvements to protect the resilience of our electric grid.

02:36:20 Anthony Cherolis: Philly, Syracuse, many cities are doing much more green infrastructure (with co-benefits) than the MDC's grey infrastructure focused plans. We've been hitting on this for years. MDC blames CT DEEP, and vice versa, for why there is no meaningful green infrastructure in the well funding storm water contamination reduction plan.

<http://allfamoustogether.blogspot.com/2018/12/lets-get-wet-green-infrastructure-ftw.html>

02:36:27 Diane Lauricella: Thank you for all the rich discussions and sharing of ideas related to the Mitigation Section of the GC3 REport.

02:37:16 Anthony Cherolis: Here's info on Syracuse's effort -

<https://sewagefreenj.org/2019/09/06/how-syracuse-won-the-battle-for-green-infrastructure/>

02:39:02 Kimberly Stoner: Thank you, Melinda Tuhus!

02:39:17 Mary Pelletier: Note that I attended a decade of MDC Citizens Advisory Committee meetings for the Long Term Control Plan from 2004 - 2014 in which I mentioned green infrastructure at every single monthly meeting, at the same time I wrote an essay on green infrastructure for the National Building Museum in Washington DC. The MDC CAC also formed a green infrastructure sub-committee, hosted two EPA Workshops held at the LOB that foregrounded the benefits and opportunities to advance green infrastructure in cities. This process involved advancing the a Green Capitol project around the Ct State Capitol, completing the North Branch Park River Watershed Management Plan, that recommended the formation of a 501c3, Park Watershed, and a series of green infrastructure implementation projects, which now underway. Based on all of the above, and recent research surrounding ecosystem service benefits, conservation of last landscapes along riparian corridors in urban areas is an important goal for the GC3.

02:39:17 Patricia Taylor: Fracking boom tied to methane spike in Earth's atmosphere - <https://www.nationalgeographic.com/environment/2019/08/fracking-boom-tied-to-methane-spike-in-earths-atmosphere/>

02:39:30 Diane Lauricella: I ask that we truly consider how to incentivize municipalities to adopt a cleaner , greener development and conservation future. Many POCDs contain the "right" language" but then do little to enact. I would love CTDEEP and DECD to monitor towns' Green planning, then consider withholding certain monies if progress is not realized.

02:39:41 Ally Cheynes: Proforestation is simply another silvicultural system like shelterwood and seed tree and clear cut and selection system. You all call it unmanaged. It's the same thing. See the letter from 113 distinguished forest scientists including Lovejoy, Mann, Woodwell, Gene Likens, et al. that cited the term proforestation as the only solution of scale that we have right in our hands right now.

02:40:15 Diane Hoffman: Thank you Melinda! We can't doom our kids!

02:40:23 Peter Picone: Quantify and Recognize all land trusts and land protection groups that steward land . This will help the public know that how valuable these land trusts are to the State Of Conn and carbon sequestration.

02:41:06 Gary Gregory: Be careful what you ask for. California has been having brown/black outs during the fires because they shutdown gas cogen plants

02:41:09 Bernard Pelletier: thank you Rebecca!

02:41:13 Kathy Fay: One last plug for support of the Energy concierge approach here

02:41:23 Frogard Ryan: Thank you, Rebecca!

02:41:24 Patricia Taylor: Thank you Rebecca - you do a great job moderating these
meetings.
02:41:25 Harry White: Good job, Rebecca.
02:41:28 Kathy Fay: Thank you
02:41:50 Gary Gregory: Californias is the leading producer of Co2 in the world.
02:41:50 Cheryl Cappiali: That you Rebecca! See you tomorrow!
02:41:56 Peter Picone: can you send the zoom meeting #
02:41:58 Karen Schnitzer: Thank you Rebecca, and thanks to all for your hard work!

**Draft for Review in
GC3 Mitigation Subcommittee Meeting on 12/14/2020**

Progress on Mitigation Strategies

Actions to begin or continue implementation in 2021

Cross-Sector

1. **Expand consumer education and awareness efforts to increase the uptake of zero- and low-carbon technology measures.**
 - **Enhance outreach efforts to increase the uptake of zero- and low- carbon technology measures.** Use social media campaigns, webinars, case studies, testimonials, and customer-engagement platforms with a focus on environmental justice communities, to highlight on-line resources and engage stakeholders.
 - **Conduct outreach on climate action plan.** Public participation should be focused on selection of criteria important to the community and coordinated with the definition of an environmental justice (EJ) index. Consider the incorporation of co-benefits to EJ communities in regulatory and agency decisions. Coordinate a sustained outreach effort with key non-profit and neighborhood organizations to develop an effective communication plan to clearly link climate actions to the quality-of-life issues important to disadvantaged and EJ communities. Consider the creation of civic infrastructure to enable communities to better advocate for their interests.

2. **Strengthen alignment between state decision making and GHG emissions- reduction goals.**
 - **Encourage energy-focused partnerships** between regional councils of government and their member municipalities, NGOs and universities to enable and align quantitative measurement of progress in reduction of GHG emissions, using a state-wide standard tool. Consider publication of comparable town-by-town emissions reports on state website to engender accountability and friendly competition while speeding overall progress.

Buildings

3. **Accelerate adoption of building thermal energy conservation improvements**
 - **Prioritize building envelope improvements and expand access to thermal energy - efficiency measures** through innovative financing options for all income levels and higher incentives for customers with low income and businesses located in environmental justice communities, as is ongoing through the Conservation and Load Management (C&LM) Plan and the Comprehensive Energy Strategy.
 - **Protect ratepayer efficiency and clean energy funds, to be used for their statutorily-authorized purpose.** Energy efficiency funds collected on utility ratepayer bills and through the Regional Greenhouse Gas Initiative (RGGI) are to be utilized for building energy efficiency improvements. Similarly, ratepayer funds that support clean energy and efficiency programs of the Connecticut Green Bank should be used to achieve their intended purpose. These funds are instrumental for reducing air pollution and greenhouse gas emissions, and lowering electric bills and supporting clean energy jobs.

- **Improve the ability of efficiency programs to overcome health, safety, and legal issues that are barriers to efficiency upgrades.** Continue focused engagement with partners in housing and public health through the Energy Efficiency Board to identify state- and municipal-level best practices regarding strategies to overcome issues that are barriers to energy-efficiency upgrades and adopt those that are appropriate for Connecticut. Fully utilize the Weatherization Assistance Program (WAP) funding as allowed for this purpose. Evaluate current programs for effectiveness and institute enhancements to address unmet needs in the low- and moderate-income community. Identify clear pathways for renters to follow in all programs. (cross-listed with ILU)
 - **Proactively use building codes to accelerate energy efficiency.** The State should continue to keep pace with adopting the International Energy Conservation Code (IECC) and consider strategies to further enhance opportunities to improve energy efficiency through high-performance and stretch codes and construction and renovation practices.
 - **Reduce GHG emissions from State and municipal buildings.** Continue the work under Executive Order 1 to lead by example at the state level and encourage municipalities to take the same approach in their buildings and programs.
 - **Make energy-efficiency cost-effectiveness testing consistent with public policy goals** and align the cost-effectiveness test with the National Standard Practice Manual.
 - **Consider strategies to better coordinate building performance efforts to reduce GHG emissions from buildings within the State.**
 - **Engage municipalities as allies.** Consider the creation of energy development zones to promote energy-efficiency policies targeted toward low- and moderate-income neighborhoods. Partner with municipalities and community organizations to overcome barriers to program participation and improve program delivery. Address heat island effects by encouraging the use of nature-based solutions, cool roofs and pavement, and thermal breaks. Engage partners to incentivize uptake of new clean energy technology and efficiency measures.
 - **Evaluate opportunities to scale up deep energy retrofits of existing building stock.**
 - **Consider engaging on a pilot basis with the Department of Energy's Grid Interactive Pilot** program. The Department of Energy is currently exploring ways to bring Grid Interactive Efficient Buildings on line. Such technology would mitigate GHG by use of smart-building controls to align operation and pricing with low-GHG energy.
4. **Expand consumer education and awareness efforts to increase uptake of zero- and low-carbon technology.**
- **Evaluate opportunities to increase visibility of Energize CT resources** with a focus on improving communications for low- and moderate-income communities.
 - **Review a full suite of outreach strategies with the goal of enhancing outreach efforts.** Such strategies include using social media campaigns, webinars, case studies, testimonials, and customer-engagement platforms.
 - **Increase training of real-estate industry professionals** on integrating U.S. DOE Home Energy Scores and information on energy efficiency, renewables, and resiliency into real-estate transactions processes.
 - **Help building owners pursue a holistic and strategic approach to improve building performance.** Better coordination of analysis of building performance, advice to owners regarding available technical and financial options, exploration of potential complementary actions, and guidance for owners through an iterative process to make

energy improvements as time, resources, and the owner's needs allow could improve overall outcomes of programs to enhance building performance.

5. **Transition building fossil fuel thermal loads to efficient renewable thermal technologies.**
 - **Develop sustainable funding mechanisms to incentivize replacement of fossil -fuel space and water heating with efficient renewable thermal technologies (RTT).** Rebate programs are available through the Energy Efficiency Fund paid for by fees on natural gas and electric utility bills and RGGI funds. Further enhancements include requiring delivered-fuels companies to contribute to the Energy Efficiency Fund. This requirement would reduce the cross-subsidization of delivered fossil fuels by electric ratepayers and make more money available for RTT deployment.
 - **Incentivize installation of renewable thermal technologies in new construction.** Incentives for RTTs for new residential, commercial, and industrial buildings are available through the Residential New Construction program and Energy Conscious Blueprint program. Program updates will be rolled out with the next code adoption to drive the new-construction marketplace toward zero-energy buildings with low operational EUI ratings. New program offerings will support integrated design and whole-building energy modeling at the feasibility phase and will offer incentives to customers who incorporate energy-reduction strategies through post occupancy.
6. **Improve training and technical capacity of workforce**
 - **Expand training programs to include renewable thermal technology installations and standards.** Such an expansion could include working with Home Energy Services (HES) contractors to identify current and expected job needs, creating a fast track for critical work skills, and allocating funds to help contractors train new workers. There may also be an opportunity to leverage the Office of Workforce Strategy.

Electricity

7. **Commit at least 50 megawatts of demand reduction per year to the ISO- New England forward capacity market.**
 - **Reduce electricity consumption by 1-2 million megawatt hours** by replacing existing inefficient electric-resistance space- and water-heating equipment with high-efficiency renewable thermal technology
 - **Assess distribution of C&LM program funds with a broader equity lens**
 - **Plan for the transition of the electric efficiency programs in the C&LM Plan from reliance on lighting savings to a focus on demand response.** The C&LM programs have historically relied significantly on savings from efficient lighting. Market transformation is underway as a result of federal lighting standards and efficiency program rebates. In addition to thermal envelope improvements to offset the load impacts of electric heat pumps, the C&LM programs must shift their focus to active demand response, to encourage customers to engage with a more modern grid and improve affordability and resilience."
 - **Utilize energy storage as a peak demand reduction and load flexibility strategy.** Energy storage is becoming a key strategy to shift electricity demand and increase system resiliency. Numerous storage solutions are available, including batteries and pumped hydro, which can mitigate the intermittency challenges of zero-carbon resources like wind and solar power. DEEP and PURA are investigating the value associated with battery storage in a Value of Distributed Energy Resources study that is now under way.

8. **Achieve at least 66 percent zero-carbon electricity generation by 2030**

- **Meet the Renewable Portfolio Standard (RPS) target of 40 percent Class I renewable energy sources by 2030**, with an aim to reduce the carbon intensity of the RPS to achieve its decarbonization goals. Owners of renewable-electricity generation projects receive one renewable energy certificate (REC) for every megawatt-hour of electricity they produce. Those RECs are traded in a regional market for state RPS compliance. Connecticut establishes required annual REC percentages from three classes of renewable energy resources.
- **Ensure a transparent and predictable compensation framework to maintain at least the historical annual average 40-90 megawatts of residential behind-the-meter renewable energy resources.** As retail electricity rates continue to rise, Connecticut must develop a transparent and consistent compensation structure for behind-the-meter renewable-energy generation to enable future renewable deployment. The compensation structure implemented should be consistent and easy to understand, and it should ensure a reasonable rate of return for customers and project developers, incentivizing deployment of distributed-generation sources to facilitate grid decarbonization.
- **Continue implementing a shared clean energy program deploying at least 25 megawatts per year, with a focus on low- and moderate-income customers**
- **Continue to deploy at least 50 megawatts per year of larger distributed solar and 10 megawatts per year of distributed fuel cells, with optimum utilization of available siting locations**
- **Discourage development of renewable-energy projects on forested, agricultural, and other natural lands.** As Connecticut deploys large-scale solar projects, it is important that this development does not supersede other climate change mitigation strategies, including the carbon sequestration potential of forested and natural lands. The state should encourage developers to site their projects on brownfields, rooftops, parking lots, and other developed spaces.
- **Maintain in-state zero-carbon nuclear generation and develop a long-term strategy to achieve a 100% Zero Carbon electric supply for Connecticut by 2040.** Connecticut must retain zero-carbon nuclear power as it develops a transition plan to replace nuclear with zero-carbon renewables. A transition plan must consider the costs of nuclear retirement borne by ratepayers, the diverse mix of replacement energy sources, and economic, environmental, health, and social impacts of replacement. When planning the transition away from nuclear, economic and job impacts must be considered.
- **Establish clear targets for off-shore wind procurement**— in concert with IRP recommendations and in balance with other renewable energy sources – to foster its significant potential to help meet Connecticut’s zero-carbon goals. Consider strategies to improve the state’s off-shore wind programs, including protecting endangered species and engaging in wildlife habitat monitoring before, during, and after construction and developing a workforce development plan for “green jobs” in the areas where new electricity infrastructure will be built.

9. **Optimize grid management strategies to reduce carbon emissions**

- **Identify transmission constraints and evaluate the need for new transmission infrastructure required to support a zero-carbon electric grid.** Examine whether

transmission expansion is needed to support achieving a zero-carbon emissions electricity grid. Given that development of high-voltage transmission lines typically requires acquisition of land, a study should be conducted that examines the environmental impact of building new transmission as one component to determine its benefit.

- **Increase adoption of smart-management technologies to optimize flexibility of distributed energy resources.** Grid modernization is important to better accommodate zero-energy and low-carbon generation sources and increase system safety, reliability, security, and resiliency in a cost-effective manner. It enables two-way communications between consumers and grid operators and facilitates bi-directional flows of energy to reduce peak demand and integrate distributed energy resources. This becomes even more important as buildings and transportation electrify with efficient and “smart” technologies and more distributed-energy resources come online.
- **Research and identify opportunities to integrate battery storage and distributed renewable energy technologies to reduce and displace carbon emissions.** Connecticut has taken steps to encourage adoption of energy-storage solutions. The 2019-2021 C&LM Plan allows Eversource and United Illuminating to incentivize storage in demand-response programs. Additionally, PURA Docket 17-12-03 includes RFPs for storage-incentive programs.
- **Reduce petroleum use by power plants needed to serve winter peak demand.** The State should consider the health impacts (along with cost and carbon emissions) of using oil to meet electricity demand and evaluate expansion of a winter demand response program.

Non-energy

10. **Implement the short- lived climate pollutant reduction strategies outlined in the U.S. Climate Alliance Short Lived Climate Pollution Challenge to Action Roadmap.**

- **Develop regulations to reduce methane emissions from natural gas distribution.**
- **Monitor federal policy on potential regulations for hydrofluorocarbons** that set achievable timelines for a transition to climate-friendly, HFC-free technologies and HFC substitutes in refrigerators, air-conditioning equipment, and vehicle air-conditioning systems.
- **Efforts should be explored to reduce methane emissions from agriculture**, including considering incorporating methane emissions reductions into funding criteria for agricultural programs and improving predictability of revenue streams for renewable natural gas.

11. **Incorporate climate- change mitigation in Plans of Conservation and Development (POCD).**

State-funded actions should be implemented consistent with State POCD policies, while also considering what GHG mitigation goals and actions should be integrated into the State POCD. The State should define commonly used terminology, such as “sustainable development,” develop standards for determining consistency and addressing points of inconsistency to ensure a more uniform approach, and consider opportunities for reporting and data tracking across towns and state agencies.

12. **Promote responsible and just materials management.** Consider implementing the recommendations of the Connecticut Coalition for Sustainable Materials Management (CCSMM) to address both the climate impacts of waste generation and environmental justice concerns. A strategy to address these issues could include the following:

- Waste management goals should be set to minimize the residues sent for final disposal rather than based on diversion rates
- Financial incentives should be provided to encourage manufacturers to process recovered materials into new products in support of a more circular economy
- A disposal tax based on an estimate of the GHG emissions of the final disposal process to fund incentives for a more sustainable waste management system
- Develop a strategy designed to separate organics from municipal solid waste, increase quantity and quality of recyclables, and reduce residues sent for final disposal (waste-to-energy facility or landfill)
- Mandate or incentivize diversion of organic materials from the disposal stream
- Create markets to support organics diversion
- Develop and implement food rescue and recovery programs
- Accelerate development of infrastructure to utilize diverted organic material

Transportation

13. **Maintain increasing fuel economy and low- and zero-emission standards.** Improving fuel economy can contribute to GHG emissions reduction in the transportation sector. Vehicle emissions account for the bulk of Connecticut's transportation emissions and disproportionately affect LMI communities due to the density of traffic in or near these areas. Implementing this recommendation should include the following actions:

- Maintain adherence to Corporate Average Fuel Economy and GHG emission standards mid-term review 2016 final determination
- Maintain adherence to California low-emissions and zero-emission vehicle requirements
- Establish emissions standards for medium- and heavy-duty vehicles, including school buses

14. **Expand EV charging network to ensure consumer confidence and reduce range anxiety.**

Opportunities for this area include:

- revise zoning regulations and building codes to require: (a) a minimum number of ZEV parking spaces for new construction in both multi-unit dwellings and commercial properties; and (b) all new residential construction to be EV-ready.
- prohibit homeowner associations, condominium associations, and landlords from restricting homeowners, condominium owners, and lessees with assigned parking spaces from installing charging equipment and associated metering equipment when certain conditions are met.
- provide incentives to property owners of existing multi-unit dwellings and to homeowner associations to add charging stations.
- develop educational programs for business owners, commercial property owners, and residents; overnight charging opportunities for people without garages; and dedicated ZEV parking with EV charging at municipal offices.

- post Alternative Fuel Corridor signage on the Federal Highway Administration’s designated corridors in Connecticut to let drivers know about available charging and to encourage installation of additional charging stations.
15. **Develop a State fleet transportation Lead by Example program that sets annual emissions-reduction targets and enables increasing adoption of zero-emission vehicles.** The state should actively seek opportunities to reduce the overall number of vehicles in the fleet; increase state employees’ use of transit and active transportation; increase the number of ZEVs in the state government’s light-duty vehicle fleet, incorporating criteria prioritizing replacement of fleet vehicles operating in LMI and EEJ communities; and continue meeting the accessibility needs of passengers and drivers with mobility impairment, until the ZEV market expands to include vehicle models that can provide the needed accommodations.
 16. **Update the Electric Vehicle Roadmap for Connecticut to establish specific ZEV targets that align with the ZEV MOU and the 2030 target.** Establishing a timeline of annual targets that can help assess whether the state is on track to meet its long-term commitment. Meeting the 2025 commitment in the ZEV MOU will require increasing the number of ZEVs by roughly 60% each year. Assuming that commitment is met, reaching the 2030 target will require adding an average of another 75,000 new ZEVs annually beginning in 2026.
 17. **Advance initiatives that reduce vehicle miles traveled (VMT) by 2030.** Reducing VMT, especially passenger vehicle VMT further reduces carbon emissions. Opportunities to advance this recommendation include:
 - Implement Transit-Oriented Development projects and support walkable, mixed- use, and sustainable urban and suburban development in areas served by transit
 - Encourage, incentivize, and support alternative modes and active transportation that reduce single-occupant vehicle driving
 - Remove the legislative barrier to exploration of a mileage-based user fee
 - Transit benefit, parking cash-out, and telecommuting for state employees
 - Implement state and regional policies designed to reduce growth of VMT in the areas of development patterns and ensuring the long-term stability of the public transit systems, especially in light of severe impacts from the COVID-19 pandemic
 18. **Develop sustainable funding for transportation electrification and transit infrastructure.**
 - Implement the multi-state cap-and-invest Transportation and Climate Initiative that will set a limit on transportation sector emissions and reinvest program proceeds in measures that reduce emissions; provide benefits to citizens, especially low- and moderate-income communities; protect existing transportation funding; generate sufficient additional funding to support transportation infrastructure and operation; and mitigate costs to consumers.
 - Continue and expand surveys and public engagement on the Transportation and Climate Initiative throughout 2021, including intentional outreach to rural communities and low-income communities
 19. **Advance initiatives that increase adoption of zero-emission medium- and heavy-duty vehicle.**
 - Continue to implement the joint memorandum of understanding (MOU) Connecticut signed in July 2020 with 14 other states and the District of Columbia, committing to

work collaboratively to accelerate the market for zero-emission medium- and heavy-duty vehicles, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs). The goal is to ensure that 100 percent of sales of new medium- and heavy-duty vehicle are ZEVs by 2050, with an interim target of 30 percent ZEV sales by 2030.

- Establish statewide goals for zero-emission medium- and heavy-duty trucks and school transportation. Meeting this goal by prioritizing large urban districts will enhance the equity benefits of this recommendation. To achieve an ambitious goal for zero-emission school transportation, school district fleet managers and/or operations and finance directors should be mandated to review their contracts with service providers and establish a plan for transitioning to electric school buses, working with the utilities, and taking advantage of grants where possible.

20. Reduce emissions from freight transportation. Consider including the following recommendations in the Connecticut Statewide Freight Plan in its next update in 2021/2022.

- Address GHG emissions in state-level freight planning
- Seek opportunities to shift freight from trucks to rail and ports
- Consider co-benefit of expansion of waste reduction and recycling programs that will also reduce waste-stream freight.

Working and Natural Lands Recommendations – Mitigation-only

- 1. Evaluate usable models to reliably monitor and report on carbon sinks related to working and natural lands**, including utilizing models developed by federal, state, academic, and nonprofit partners involved with the U.S. Climate Alliance as part of considering a negative emissions strategy alongside reported emissions for the building, energy, and transportation sectors (Mitigation) (cross-list S&T, MS)
- 2. Evaluate approaches and best practices for Siting of Renewable Energy Infrastructure to Avoid Loss of Forests, Farmland and Other Sensitive Lands.** (Mitigation)
- 3. Increase Mitigation of greenhouse gas from Connecticut's Forests: Keep Forests as Forests**
 - a. Consider feasibility of goal of permanent protection of at least 50% of core forests greater than 250 acres by 2040 and identify resources to achieve that goal (Mitigation)
 - b. Consider actions to increase statewide forest cover from 59% to over 60% by 2040 (Mitigation)
 - c. Pursue opportunities to review guidelines and incorporate best practices for management of vegetation, including roadside trees, utilized by electric utilities, the State, and municipalities, within available resources. (Mitigation)
 - d. Evaluate how to improve forestry practices in Connecticut's working forests by following scientific principles, including the emerging body of knowledge on how to manage forests for resilience and to store and sequester carbon. (Mitigation)
- 4. Increase the adoption of on-farm energy production and reduce on farm energy usage.**
 - e. Enhance energy efficiency programs available to farms and explore renewable energy production opportunities.(Mitigation)
 - a. Investigate successful models of funding and technical assistance to allow new and innovate farm energy technology. (Mitigation)
 - b. Identify barriers, risk, and unexpected costs for farms seeking to implement on-farm energy projects. (Mitigation)
 - c. Continue support for energize CT programs where farms can receive assistance in retrofitting their inefficient equipment with high energy measures. (Mitigation)
 - d. Establish a process in which the DEEP commissioner may direct the electric distribution companies (EDCs, i.e., Eversource and United Illuminating) to enter into long-term agreements to purchase power or renewable natural gas from anaerobic digestion facilities, including policies and incentives to enable on-farm anaerobic digesters. (Mitigation)