# Governor's Council on Climate Change (GC3) GC3 Public Forum - Progress on Mitigation Strategies MEETING MINUTES

Meeting Date: September 23, 2020 Meeting Time: 4:00 pm

**Meeting Location:** 

https://ctdeep.zoom.us/rec/sha re/lQXCTnp9xrZdA60N3ea-9zdEL0tQR4qcZMU-

twVzcLurJxBZpwoCyYzOMK sfMgiw.RpDpxfaSya8yabMW

?startTime=1600891546000

# **ATTENDANCE**

Attendee	Title	Organization	Present
Phone Participant 1			٧
Phone Participant 2			٧
Phone Participant 3			٧
Phone Participant 4			٧
Phone Participant 5			٧
Phone Participant 6			٧
Phone Participant 7			٧
Phone Participant 8			٧
Alan Poirier			٧
Alec Shub			٧
Alexis Meehan			٧
Ali Ghiorse			٧
Allen Kratz			٧
Amanda Clark			٧
Amber Garrard			٧
Amy McLean			٧
Amy Paterson			٧
Andy Winslow			٧
Anji Seth			٧
Anne Schmidt			٧
Anthony Cherolis			٧
Arielle King			٧
Aziz Dehkan			٧
Ben Martin			٧
Bernard Pelletier			٧
Bonnie Potocki			٧
Brenda Watson			٧
Bruce Dasinger			٧
Bud McAllister			٧
Cary Lynch			٧
Catherine Diviney			٧
Charles Rothenberger			٧
Chris Donnelly			٧
Chris Phelps			٧
Chris Schweitzer			٧
Claire Coleman			٧
Connor Rockett			٧
Debi Geyer			٧
Denise Savageau			٧
Diane Hoffman			٧
Diane Mas			٧
Donna Wells			٧
Edith Pestana			٧
elina griggs			٧
Evelyn Pan			٧

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Gannon Long			√
Garrett Eucalitto			√
Guy West			٧
HENRY LINK			٧
iris kaminski			٧
James Flynn			٧
Jean Cronin			٧
Jean-Paul Simjouw			٧
Jeff Howard			٧
Jill Oberlander			٧
joanne balaschak			٧
John Barnowski			٧
John DiModica			٧
Joshua Ryor			٧
Kai Starn			٧
KAITLYN CYR			٧
Kate Donatelli			٧
Kathy Fay			٧
Kimberly Stoner			٧
Kirsten Rigney			٧
Kris Kuhn			٧
Laura Bozzi			٧
Lee Cruz			٧
Lilian Ruiz			√
Lisandro Suarez			√
lynne bonnett			√
Madhav Munshi			<u>,</u>
Marcia Wilkins			<u>√</u>
Mark Bolduc			<u>√</u>
Martha Kelly			<u>,</u>
Mary-beth Hart			٧
melinda tuhus			√
Michael Li (Michael Li)			√
Michael Malmrose			V
Michele Helou			V
Mike Morrissey			V
Mike Urgo			V
Mohit Agrawal			V
Nathan Frohling			V
Patrice Gillespie			V
Patricia Taylor			v √
Paul Hearn			v √
Pete O'Connor			
			√ -/
Peter Hearn			٧
Peter Shattuck			√
Ralph Jones			√
Rebecca French			<b>√</b>
Rick Newton			<b>√</b>
robert auer			<b>√</b>
Robert Bell			٧
Roger J Kuhns			٧

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Royal Graves	٧
Samuel Tubman	٧
Shanté Hanks	٧
Sharon Huttner (Sharob	
Huttner)	√
Stan McMillen	٧
Stanley Nolan	٧
Starley Arias	٧
State Rep David Michel	٧
Steven Wallett	٧
susan eastwood	٧
susan masino	٧
Susan Miller	٧
Tanya Dwyer	٧
Thomas Swarr	٧
Thomas Worthley	٧
Trevor Hurlbut	٧
Wayne Cobleigh	٧
Weezie Nuara -	
Dominion Energy	٧
William Cavers	٧

## **AGENDA & NOTES**

#### Welcome and Announcements

Rebecca French commenced the meeting at 4:05 pm and began by reviewing the agenda, which includes a brief overview of the Governor's Council on Climate Change (GC3), followed by presentations by co-chairs of the working group, Progress on Mitigation Strategies. After the 90 minutes of presentations, we will break out into discussion sessions. The moderator of each session will facilitate a discussion based on the sector's recommendations.

### Agenda Item(s)

Governor's Council on Climate Change (GC3) Overview- Rebecca French, DEEP

Rebecca French provided a brief overview of the GC3. Overview and summary can be found <a href="https://example.com/here">here</a>. Tonight's forum focuses on objective 1, monitoring and reporting on the state's implementation of the greenhouse gas emissions reduction strategies set forth in the GC3's December 2018 recommendations report, through discussing the progress on mitigation strategies work group.

The GC3 process has been ongoing since December 2019 and is now in a period of public review from September  $22^{nd}$  to October  $21^{st}$ . After the conclusion of the public review period, the working groups will consider public feedback and revise their reports before sending them to the council. The final report and recommendations will be submitted to the governor by January 15, 2021.

The working group reports are available <u>here</u>. Written comments can be sent to <u>deep.climatechange@ct.gov</u>.

Overview of Progress on Mitigation Strategies Working Group- Jeff Howard, DEEP

Jeff Howard's slides are posted on the GC3 webpage. Additional comments from his presentation include:

- Jeff Howard outlined the mission of the working group (see presentation slides)
- Working group kicked off in March and met six times between then and August
- The members of the working group represent a wide range of organizations including environmental, business, public service, government agencies, museum and planetarium, and the University of Connecticut
- The working group is comprised of five teams: Building, electricity, transportation, cross-sector, and non-energy

Buildings Team of the Mitigation Working Group-Bernie Pelletier, People's Action for Clean Energy

Bernie Pelletier's slides are posted on the GC3 webpage. Additional comments from his presentation include:

 Bernie Pelletier began by defining mitigation in the context of buildings as reducing the amount of greenhouse gas generated in the building sector

- There are four themes to solving the problem of building efficiency outlined in the 2018 GC3 report
  - Building efficiency
  - o Consumer education
  - o Renewable thermal technology
  - Workforce development
- Our efficiency programs for buildings are excellent but they have problems because of physical and legal barriers to improvement
  - Currently, if a home energy solutions auditor comes across mold or asbestos that is loose in a home, they have to stop their work
  - An example of a legal barrier is that one third of Connecticut residents are renters and most of the programs that we have are aimed at building owners
  - o It is important to note that buildings that suffer from these issues are often the ones that are older and have greater greenhouse gas production
- The state administers its efficiency programs through use of a cost efficiency test which balances the costs and benefits of providing a service. However, the question becomes what is considered to be a benefit? Things like energy security and health are not considered benefits
- Bernie Pelletier then elaborated more on each of the four themes outlined in the report for solving building efficiency
  - Building Efficiency
    - Loose asbestos or mold in a building would prevent a contractor from doing a blower door test and therefore, are examples of things that prevent greenhouse gas mitigation in the building sector
  - Consumer education
    - There are a lot of great policies but the people who need them the most know the least about them
    - Bernie Pelletier explained that the building sector needs a central focus and proposed creating a Building Performance Office, which would provide a more holistic approach to bringing together everything incorporated into building efficiency
    - Creating a role for a position like a Building Concierge would help to provide advice to homeowners on available tech and efficiency options
  - o Renewable Thermal Technology
    - Heating our homes and buildings is the biggest source of greenhouse gas
    - We need to move from non-renewable thermal technology to renewable, like heat pumps
    - In order for this to happen, we need sustainable funding sources
    - One recommendation is that we need to bring together a detailed transition plan that coordinates the deployment of heat pumps, which run on electricity, with a commensurate buildup of the electricity sector to accommodate the increased load
  - Workforce development
    - We need to integrate the resources that we have with the goal of a steady stream of work, done by a steady stream of workers, paid by a steady stream of funding

Electricity Sector of the Mitigation Working Group-Michael Li and Kate Donatelli, DEEP

Michael Li and Kate Donatelli's slides are posted on the GC3 webpage. Additional comments from their presentation include:

- Michael Li began by clarifying that the content the stakeholders and working group
  members provide does not necessarily represent the recommendations or the position of
  any individual group. One might notice in the presentations or in the breakout sessions that
  not everybody on a given team agrees on the various recommendations that the team has
  put out in their reports.
- Michael Li provided an overview of the major changes that have taken place between the publishing of the 2018 Governor's Council and where we are today (see presentation slides)
- The electricity system is already facing a variety of stressors from climate change
- DEEP recognizes that low- and moderate-income households have historically been disproportionately impacted by electricity generation. Therefore, the recommendations for mitigation and emissions reduction is also looking at recommendations from an equity and justice lens to ensure that we are not exacerbating and instead addressing some of those historical issues moving forward
- Michael Li presents three recommendations for reducing demand (see presentation slides)
  - Replace existing inefficient electric resistance space and water-heating equipment with high-efficiency renewable thermal technology
  - o Reduce peak demand
    - Peak demand typically occurs in the summer on high temperature days when people are using more air conditioning
    - Historically, in order to meet the added demand, we have had to bring on either natural gas or oil power plants
    - This strategy aims to reduce peak demand so that we do not need to take on the highest emitting power resources
  - A new strategy is to use battery storage as a peak demand reduction and load flexibility strategy
- Michael Li covered progress that has been made since the 2018 GC3 report (see presentation slides)
- DEEP is holding an equity and energy efficiency proceeding that has a public comment period that is currently open
  - This will explore questions about what equity and justice considerations DEEP and the utilities should consider as they relate to the energy efficiency programs that are offered
- Kate Donatelli outlined the 8 strategies to help achieve at least a 66% zero-carbon electricity generation by 2030 (see presentation slides)
- Strategies 7 and 8 were added during the reexamination of this sector. Strategy 7 has to do with the potential of offshore wind to help the state meet a zero-carbon goal. Strategy 8 calls for an examination of the level of transmission expansion that would be needed to achieve a zero-carbon grid. This would look at some of the grid constraints that are specific to offshore wind.
- Kate Donatelli presented some of the progress made in the electricity sector since the GC3 in 2018 (see presentation slides)
- A major focus area of the report was equity and environmental justice. The presentation slides list some of these considerations and more detail can be found in the draft report here
- Michael Li reviewed the major recommendations that relate to grid management strategies (see presentation slides)

Transportation Sector of the Mitigation Working Group- Anthony Cherolis, Center for Latino Progress

Anthony Cherolis's slides are posted on the GC3 webpage. Additional comments from his presentation include:

- Anthony Cherolis began by expressing that communities bearing the greatest public health impact from emissions must be prioritized for benefits from a clean transportation system
- An equitable approach to emissions reduction must look beyond electrification of cars because a high percentage of households do not have cars
- Active transportation like walking and biking must be invested in
- Safety is important to address because if a person does not feel comfortable walking or biking, it can greatly impact their mobility
- Anthony Cherolis presented four themes of the report on transportation:
  - o Increasing fuel economy standards
    - Progress on this has been hindered by concerted federal actions to rollback policies
    - Additionally, automakers have continued to sell larger and heavier vehicles to the US
    - The draft report includes a 2020 recommendation which is to establish emissions standards for medium- and heavy-duty vehicles, including school buses
  - o Increase zero emission vehicles as a percentage of fleet (>20% by 2030)
    - The 2018 GC3report includes a target of 125,000 electric vehicles by 2025
    - This is an aggressive goal, given that as of 2020 we have around 12,000 electric vehicles
    - Starting in 2021 there will be increased rebates on electric vehicles for lowand moderate-income households
    - In the proposal there is a recommendation to incentivize use of private fleets of motorcycles, e-bikes, and scooters
    - These operations will be focused on low- and moderate-income and environmental justice communities given that the impacts of motor vehicle emissions disproportionately impact those communities and communities of color
    - Anthony Cherolis added that, for example, Hartford has set a 100% zero emission vehicle goal for their school transportation by year 2035 and it is important that state goals move in parallel to local goals like this
  - Eliminate annual growth of vehicle miles traveled by 2030
    - Anthony Cherolis expressed that reducing and eliminating vehicle miles traveled growth is the wrong goal. Instead, the report recommends not just stopping growth but actually reducing vehicle miles traveled.
    - New 2020 recommendations under this theme are shown on presenter slides
    - It is important to consider that transit has experienced complications due to the COVID-19 pandemic, and ridership levels have fallen significantly
  - Sustainable funding for electrification and transit infrastructure

- Since 2018, there has been work on a multi-state cap-and-invest program called the Transportation and Climate Initiative, which is moving closer to a legislative proposal in 2021
- The revenue from that program would be specifically invested in infrastructure and transportation programs that reduce greenhouse gas emissions
- New 2020 recommendations from the draft report state that 100% of greenhouse gas reduction consumer fees should go to emissions reduction rather than a general fund
- There is currently a legislative prohibition on exploring a mileage-based user fee. Instead, this is something that DEEP and DoT should be able to study.
- Reduce the number of vehicles on the road
  - A 2020 proposal from the draft report is to explore car-share options for residents of municipal and state fleets that typically sit vacant during evening, weekends, and holidays
- Reduce emissions from freight and shipping
  - An addition to the 2020 recommendations is to reduce emissions from freight and shipping, as the current plan has no goal to reduce greenhouse gas emissions
  - o The recommendations in the draft report are listed on presenter slides

Cross-Sector of the Mitigation Working Group- Charles Rothenberger, Save the Sound

Charles Rothenberger's slides are posted on the GC3 webpage. Additional comments from his presentation include:

- Charles Rothenberger presented the policy themes of the cross-sector report:
  - Carbon Pricing
    - Certain sectors might lend themselves more effectively to a carbon fee approach while others would be better with a cap and investment program
    - While there has not been a successful economy wide program adopted yet in the US, the team does recommend exploring establishing an economy wide system
    - There is a program for the electricity and hopefully the transportation sectors but the building sector remains as the large area not covered under a carbon pricing proposal
    - It is important to recognize that these pricing mechanisms have both the opportunity to either exacerbate or ameliorate the impacts on low- and moderate-income communities. Therefore, it is important to ensure that revenues generated by such policies are intentionally invested in programs that reduce the pollution burden on these communities.
    - Pricing mechanisms can also generate funds that can be used to address adaptation and resiliency that should also focus investment to equitably address existing disproportionate burdens of low-and moderate-income communities
  - Education and Outreach
    - A recommendation from the 2018 report was to enhance the outreach efforts by using webinars and other online resources

- The COVID-19 pandemic has driven the increased use of these resources, which opens up proceedings for much broader participation
- DEEP has hosted new broad stakeholder meetings and is moving longstanding regular meetings to these online platforms (including the Governor's Council on Climate Change)
- Moving forward, the focus will be on outreach about climate activities, particularly to overburdened communities
- These outreach efforts need to connect climate action to the near-term priorities of these communities to highlight and demonstrate the measurable improvements in quality of life that flow from policies
- o Integrating Greenhouse Gas Mitigation, Adaptation and Resiliency
  - We need to highlight how the cost of protecting the infrastructure that we currently have as well as the populations who live near this infrastructure increases over time without appropriate mitigation measures
  - When we talk about adaptation and resiliency, a lot of attention is focused on sea level rise but it is also important to recognize that existing conditions like chronic health issues, substandard living conditions, and the lack of access to essential services are also exacerbated by climate change
- Increasing Consideration of Greenhouse Gas Reduction Goals in State Decision-Making (new 2020 theme)
  - Adopting strong greenhouse gas reduction targets is fine but we need the implementation of policy to back it up
  - It is important to take a holistic approach and consider the broader public health and economic benefits in state and local communities that reducing carbon emissions will have

Non-Energy sector of the Mitigation Working Group- Charles Rothenberger, Save the Sound

Charles Rothenberger transitioned into discussing the non-energy sector of the Mitigation Working Group

- Non-energy is a relatively small percentage of Connecticut's total greenhouse gas emissions (roughly 6%) but we cannot get to zero emissions without addressing it
- Implementing U.S. Climate Alliance Short Lived Climate Pollutant (SLCP) Strategies
  - Key recommendations of the report are included on presenter slides
  - The working group wanted to highlight the importance of investigating the capping any fugitive emissions from the natural gas system, which is "leaky"
  - Recommendations for limiting and regulating use of hydroflourocarbons are listed on presenter slides
- Natural and Working Lands
  - Focus on developing carbon accounting methodologies to help support sustainable use practices throughout the state
  - New recommendations are listed on presenter slides
  - New non-energy policies include establishing Plans of Conservation Development (POCD) as sustainability plans
    - There should be a focus on aligning POCDs with climate goals, while there is currently no requirement that they do so
- Waste Management
  - Details are listed on presenter slides

#### **Breakout Sessions**

Participants of the public forum were then moved into separate breakout session rooms by Marybeth Hart, to discuss the details of the topics presented by each of the working group teams. The breakout session themes included: buildings, electricity, transportation, cross-sector/non-energy. Each session was moderated by the respective presenter of each topic.

Breakout sessions officially concluded at 6:30 pm but the rooms were left open to accommodate additional conversation.

**NOTE:** All Agendas and minutes and working group reports can be found <u>here</u>

# Chat Record:

00:15:32 Bud McAllister: Bud Buildings 00:16:03 Evelyn Pan: Evelyn Transportation 00:16:31 Amy McLean: Amy McLean - buildings 00:16:48 Martha Kelly: Hey, BUD! Non-energy Cross 00:17:31 Alan Poirier: Alan Poirier - Electricity 00:21:16 Gannon Long: Hi, can you put the draft report link in the chat please? Thanks! 00:22:03 Martha Kelly: Is there some way that I can view all break-out groups later. Can a nonparticipant view this meeting in recorded form later? 00:22:31 Gannon Long: Thank you! 00:23:28 Martha Kelly: Can you put links somewhere else for the sake of those of us who cannot take notes? 00:24:39 Martha Kelly: No, bigger would be ?legible. 00:24:40 Steven Wallett: f5 might work 00:24:44 Gannon Long: if folks maximize the zoom and go full screen the presentation is clear 00:24:50 Gannon Long: x the chat 00:25:24 Martha Kelly: The graphs are illegible. 00:26:02 Kimberly Stoner: The slides are not advancing! 00:26:10 susan eastwood: @MaryBethHart electricity

00:26:16 Rebecca French: Jeff Howard works for the Connecticut Department of Energy and Environmental Protection

00:27:51 Rebecca French: https://portal.ct.gov/-/media/DEEP/climatechange/GC3/GC3-working-group-

reports/GC3\_Progress\_mitigation\_strategies\_REVISED\_draft\_report\_public\_comment\_092120.pdf 00:28:10 Rebecca French: The above is a link to the Progress on Mitigations Strategies working group report

00:29:15 Rebecca French: We do not have recording ability using zoom for all of the break out session, but we are taking detailed notes on each break out session.

- 00:29:36 Brenda Watson: Thank you Bernie!! and Jeff!
- 00:39:05 Gannon Long: These slides are awesome, Yoda is a great touch
- 00:39:13 Anthony Cherolis: PURA Meetings Definitely not a way to reach low income households...
- 00:39:32 Patricia Taylor: Will you improve business owner/commercial building education, too?
- 00:41:19 Martha Kelly: None of these acronyms reach the COMMUNITY.

00:42:05 Kimberly Stoner: Right! No acronyms. Also, the word "concierge" may put people offalthough I think the concept is great.

00:43:19 Anthony Cherolis: Can we make building sprawl on farms and chewing up woodlands illegal or attach a steep fee? Our state wide "CT's Transportation Future Survey, Oct 2019" showed 65% support for that (only 15% opposed). https://www.ctprf.org/wp-

content/uploads/2020/02/CT\_Transportation\_Future\_Survey\_Results\_2019\_Dec\_update.pdf 00:43:54 Anthony Cherolis: (go to slide 13)

00:44:56 Ben Martin: why do we need more energy sources when we are currently exporting power?

00:48:39 Ben Martin: we need to eliminate ghg emissions by 2030, not just reduce them

*00:49:16 Trevor Hurlbut: ++++* 

00:49:59 Rebecca French: Reminder to send a private 'chat' to Mary-beth Hart with your choice for one of four break out session (if you have not already done so via survey monkey). Break out sessions: Buildings, Transportation, Electricity or Cross-sector/non-energy

00:51:40 Bernard Pelletier: Ben Martin - good question - in the future we'll need 2 to 3 times the electricity we have now

00:51:47 Ben Martin: tree trimming won't harden grid enough and reduces ability of carbon absorption.

00:52:15 Ben Martin: need to put infrastructure underground whenever possible

00:52:18 Thomas Worthley: Proactive Management - See www.stormwise.uconn.edu

00:52:48 Kimberly Stoner: See recommendations of CT Botanical Society on maintaining utility Rights of Way.

00:52:56 Anthony Cherolis: Bernard - If we are building a system that requires 2-3 times more electricity, we are probably aiming for failure. There needs to be a much more significant focus on reduced usage and reduced waste.

00:53:05 Bernard Pelletier: Martha - we have a focus on the community - just could not get to it in 20 minutes - it was missing from the 2018 report

00:54:11 Bernard Pelletier: tony - transportation will be electric - that alone will double it. moving from natural gas and oil will also increase the demand as well. agreee that efficiency has to be front and center - but demand for electricity will go up

00:54:12 Denise Savageau: I also recommend the UConn Stormwise program. This has not been actively uses as a tool to manage roadside/forest trees. Tree trimming is not forest management and does not promote a strong health road side forest.

00:54:49 Diane Hoffman: thank you Denise!

00:55:01 Denise Savageau: Need great focus on distributed generation and microgrids not on a centralized grid.

00:55:10 Anthony Cherolis: Bernard - If we aim for a status quo shift from our current car-centric, low occupancy vehicle system, you are correct. We can't aim for a status quo car-centric system and succeed.

00:55:24 Ben Martin: Denise is right!

00:57:35 Kimberly Stoner: Yes - more distributed energy resources!

00:58:02 Anji Seth: question re peak demand: when we are all using heat pumps in winter, and EVs will peak demand shift to winter? is there modeling work be done to look at how demand an it's peak will change?

00:58:16 Anthony Cherolis: Micheal, Re: Local Solar - There are apartment buildings, condos, and industrial buildings in urban areas that haven't been able to move over to rooftop solar. Many programs have been focused on separate houses for rooftop solar. Could get some big arrays on larger buildings if that was a focus. [hooray for distributed, locally generated energy]

00:58:30 Stanley Nolan: Microgrids for resilience and storm hardening require CCHP sources.

00:58:45 Denise Savageau: DEEP/PURA study on Distributed Generation. Is this being conducted by someone in Environmental Economics, Need to make sure that externalities are including not simple cost/benefit analysis.

00:59:56 Bernard Pelletier: anji seth - the consultant is Levitan and associates

01:00:51 Ben Martin: 66% of electricity by 2030 is too low and impossible if we build another fracked gas power plant in Killingly Ct

01:01:20 Denise Savageau: Thank you. Assuming they will be doing an analysis that includes externalities. This should be a requirement in their contract. A macro look, not a micro at the economics.

01:01:34 Bud McAllister: Thanx Ben! No Fracked Gas

01:01:35 Kimberly Stoner: Even at the beginning of the presentation, they said 71% of electricity. Should be even more.

01:02:56 Anthony Cherolis: Is that new fossil fueled energy plant in Killingly still happening. Agreed that is a very odd project to be moving forward knowing what we know about what needs to happen to reach critical ghg emission reduction goals. We can't be building any new fossil fuel infrastructure like that and make it to those goals. Really, we need to exceed those goals to have a chance to survive...

01:03:35 Denise Savageau: Too much focus on large scale solar/renewables. Need great focus on distributed generation.

https://ilsr.org/report-is-bigger-best/

01:03:57 Martha Kelly: I sure hope not. (Killingly)

01:04:03 Kimberly Stoner: Yes, according to the report - the fracked gas power planting Killingly is still happening! We need to stop it. It makes no sense. It will keep us from meeting greenhouse gas goals.

01:04:22 melinda tuhus: If we agree that we need to stop digging then we definitely can't build the Killingly fracked gas plant

01:04:48 Diane Hoffman: If Killingly plant isn't stopped these efforts will not offset the damage created by the plant

01:04:48 Trevor Hurlbut: absurd that killingly hasn't been shut down yet. what is Lamont even doing?

01:05:16 Martha Kelly: Wrong, wrong, wrong. Not Kimberly, more LNG generation.

01:05:51 Brenda Watson: Thank you Tony C.!

01:06:18 Kai Starn: Both the Sierra Club and Clean Water Action continue to highlight opportunities to push back on the various approvals related to the finalization of the Killingly gas plant. Public comments are due by Oct. 9

01:06:46 Denise Savageau: Report should recommend that no large scale solar will take place on Natural and Working Lands when we have parking lots, rooftops, etc. So much developed real estate. Limiting discussion to core forests and/or prime farmland doesn't look that the ecosystem services of all forests/trees or the carbon sequestration potential of soils.

01:06:47 Martha Kelly: Thank you, Diane Hoffman and Trevor Hurlburt ant Tony C.

01:07:28 Kimberly Stoner: Denise Savageau - also brownfields! Another good place for solar!

01:07:39 Bernard Pelletier: Covid 19 is a challenge to public transit (and the building sector) - something that we need to factor in...

01:10:56 Denise Savageau: Need to tie in distributed generation and adoption of electric vehicles. Coupling these two strategies would help drive both.

01:11:21 Patrice Gillespie: France imposes vehicle taxes according to horsepower

01:11:55 Susan Miller: Prevent advertising for non-electric vehicles

01:12:20 Bernard Pelletier: absolutely denise - they distributed energy and evs are partner strategies

01:12:48 Cary Lynch: From today:

https://www.politico.com/states/california/story/2020/09/23/newsom-calls-for-california-ban-on-new-gas-fueled-cars-by-2035-1317947

01:12:52 Martha Kelly: Now, that's interesting and creates an incentive to go to smaller, lighter vehicles.

01:13:25 Patricia Taylor: Show people the correlation between vehicle exhaust and poor air quality by adding more air quality monitors to our state's monitoring, and make sure communities can see their daily air quality numbers.

01:15:15 Martha Kelly: Another good idea.

01:15:57 Kimberly Stoner: So often we see the 2018 recommendations and new recommendations, and no report on whether we are meeting the 2018 recommendations. Are we?

01:18:42 Rebecca French: Thank you for the question in general about tracking progress on the 2018 report. There is some description on activities related to the recommendations in the 2018 final report of the Governor's Council on Climate Change convened under Governor Malloy within the Progress on Mitigation Strategies working group report.

01:19:08 Bernard Pelletier: Not in the building sector. Funds raid is one reason - but not the only one.

01:19:09 Alec Shub: It's unlimited and only costs \$20 for UConn students

01:19:16 Rebecca French: Due to keeping these presentation to a high level 20 minute overview, not all of the details on progress were included in this presentation.

01:19:17 Alec Shub: For a semester

01:20:26 Rebecca French: I can help with translation of acronyms in the chat if you let me know.

01:20:30 Martha Kelly: I was just going to ask for U-Pass, too. How about giving it without charge to those seriously involved with DOL or Employment training?

01:20:48 Brenda Watson: State employees should pay to park in metro cities like Hartford, Waterbury, etc. Especially as state garages are barely used as a result of COVID

01:24:49 Chris Phelps: While mostly good policies in and of themselves, a lot of this is small-bore stuff disconnected from serious emissions reductions targets. Especially compared to CA Gov Newsom's announcement today of a commitment to banning sales of new internal combustion engine vehicles by 2035.

01:27:21 Rebecca French: Again for anyone joining later...Reminder to send a private 'chat' to Mary-beth Hart with your choice for one of four break out session (if you have not already done so via survey monkey). Break out sessions: Buildings, Transportation, Electricity or Cross-sector/non-energy 01:28:05 Ben Martin: parking areas should be required to have renewable energy generation on roofs, covers or solar pavement

01:30:55 Denise Savageau: Has a detailed report been done on barriers to using mass transit? For example, if commuter services only looks at 9-5 jobs, how does that impact workers on flex schedules or worker off peak. Women and low income usually most impacted. Examples: Many women who also have to deal with child care, won't use mass transit because need to be able to pick up kids at schools etc. Most off-peak users have lower paying jobs

01:32:22 Martha Kelly: True.

01:34:14 susan masino: Agree with comment by Denise S. re barriers and can give specific examples.

01:34:45 Anthony Cherolis: @Patrice - I like the vehicle tax based on (fossil fueled) horsepower. We've got a recommendation to add a Connecticut gas guzzler fee for non-commercial vehicles which would somewhat do that. The challenge would be that we'd need that to be a multi-state fee for NY, RI, MA, and NJ + others. The fee could pay into reducing ghg emissions.

01:36:02 iris kaminski: I think the high toll should be back in the conversation, polluters from NY and Boston can pay, like we do when we go into NY and to Ma.

- 01:36:30 Martha Kelly: Why leave out commercial? I bet most Giant pick-ups managetobe registered as commercial.
- 01:36:57 Anthony Cherolis: Clear message to auto industry --> "commitment to banning sales of new internal combustion engine vehicles by 2035." [good point Chris Phelps, we need to be thinking bigger]
- 01:37:26 Denise Savageau: Mitigation and Adaptation/resiliency. Need to look at all ecosystem services. Not necessarily just those seen as adapting to climate change.
- 01:38:38 Martha Kelly: Low quality housing is leaky.
- 01:39:22 Anthony Cherolis: @Denise The improvements proposed to transit in the metro Hartford area would have increased evening and weekend service and addressed other shortfalls based on changes known to increase ridership in other metro areas. The improvements have not yet been funded. https://crcog.org/wp-content/uploads/2018/09/Hartford-EX-Summary\_April\_FINAL.pdf
- 01:39:41 Bernard Pelletier: Older buildings generally are leaky and inefficient this is a huge opportunity to mitigate GHG. NREL estimates that CT could lower residential thermal demand 26%
- 01:40:15 Martha Kelly: Need to approach zero and low emission ways to cool as well as Heat.
- 01:40:40 susan eastwood: Thank you for tying in to the unneeded Killingly power plant.
- 01:40:44 Ben Martin: DEEP needs to recognize it's own data and goals when considered fossil fuel infrastructure
- 01:40:51 Ben Martin: and reject them
- 01:40:55 Kimberly Stoner: New Jersey just passed a very strong law about environmental justice communities requirement that burden on these communities be taken into account in siting all hazardous activities
- 01:40:57 Bernard Pelletier: heat pumps + good insulation + local solar is the key to heating and cooling
- 01:41:03 Anthony Cherolis: @Denise New Haven has their MOVE New Haven transit study and recommended investments. Some bits of that may move forward next year. Funding challenges there too. http://www.movenewhaven.com/
- 01:41:57 Denise Savageau: @Anthon exactly why the GC3 report should specially address this and move funding forward.
- 01:42:00 Martha Kelly: Ben Pelletier, a good start but not everything.
- 01:42:58 Bernard Pelletier: MK what other ideas do you have?
- 01:43:58 Rebecca French: SLCPs = Short Lived Climate Pollutants like methane and hydrofluorocarbons
- 01:44:50 Anthony Cherolis: @Martha Re: Gas Guzzler Fee At least at first it would focus on non-commercial vehicles. There aren't as many EV or hybrid options in that sector yet. The gas guzzler fee could be expanded ton include commercial vehicles as those options become more available which should happen as the medium and heavy duty ZEV MOU is put into effect.
- 01:45:19 Ben Martin: no gas infrastructure is airtight so can't be safe. leaks are bad but compressor station just vent gas during maintenance
- 01:45:25 Rebecca French: SLCPs remain in the atmosphere much shorter time than CO2, but still contribute to global warming
- 01:46:01 Kimberly Stoner: Replacement of refrigeration systems and chemicals is the number one recommendation in Project Drawdown.
- 01:46:38 Rebecca French: GWP = global warming potential metric for how much that greenhouse gas contributes to global warming. A way to compare the different greenhouse gases.
- 01:47:27 Cary Lynch: At the federal level, there is a bill in the senate (I think) that would adhere to the Kigali Amendment which would phase down HFCs.
- 01:47:40 Bernard Pelletier: https://www.esrl.noaa.gov/gmd/ccgg/trends/monthly.html provides graphs of the increase in methane nitric oxide and other SLCP very alarming

01:48:05 Martha Kelly: Smaller ones that a homeowner of an old building or a renter could implement. E.g. Plantings outside, Blinds or Shades that are retrofits over leaky windows, ways of adding insulation from inside to a limited space. Maybe small, but lots fo folks are on the edge. 01:48:33 Bernard Pelletier: MK - excellent points...thank you -

01:49:27 Anthony Cherolis: Community gardens and urban gardens can be very important from a food security and community health perspective. Heck, I've grown ~80% of my veggies this year in Hartford raised beds.

01:49:31 Patrice Gillespie: @Anthony - A multi-state vehicle tax rate structure based on fossil-fueled horsepower, per France's model, is a great idea. Let's explore that per your funding idea, above 01:49:40 melinda tuhus: Trees are our best natural carbon sink in addition to being extremely important in LMI communities. It is crazy to be cutting them down all the time like the utilities are doing

01:50:04 Kimberly Stoner: The Pollinator Pathways movement is encouraging native plants in place of lawn in over 85 towns in Ct.

01:50:14 Rebecca French: Come to Working and Natural Lands Working Group Public Forum next week to learn more about the tree and other option nature-based mitigation strategies

01:50:52 Martha Kelly: A plan for waste reduction, in only 2020. At last.

01:51:01 Anthony Cherolis: City of Hartford has a "goal" to increase tree canopy from 25% to 35% by year 2035. Sadly we are losing tree canopy every year and unable to plant more than we lose (staff and \$\$ constraints).

01:51:13 lynne bonnett: I have to go to another zoom meeting but I wanted to say that moving away from sewage sludge incineration to a system that makes beneficial use of sewage by creating renewable natural gas options is very important. It is not enough to just ask this industry to look into other options; they have zero incentive to do so. Incineration produces toxic chemicals that damage the health and well being of EJ communities that have to breathe these toxic emissions.

01:51:23 Denise Savageau: EEJ benefits of trees should include moderation of heat island effects.

01:51:23 Anthony Cherolis: New Haven currently has around 35% tree canopy, for reference.

01:52:51 Kris Kuhn: Is this chat record available after?

01:53:19 Bernard Pelletier: kris - just click on the three dots and you can save - but it will be saved also

01:53:26 Martha Kelly: Yes, I'd like that, too.

01:53:37 Michael Malmrose: click the elipsis in the chatbox and you can save it

01:54:00 Gannon Long: Regarding the chat, everyone remember that even private chats become public record

01:54:44 Martha Kelly: Then, after you save it, where is it?

01:55:04 Martha Kellv: No.

01:55:22 Alec Shub: It will save to a folder titled

01:55:25 Steven Wallett: Zoom folder I think

01:55:25 Alec Shub: Zoom