

# **Governor's Council on Climate Change (GC3)**

## **MEETING MINUTES**

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**Meeting Date:** Oct. 19, 2016

**Meeting Time:** 1:30-3:30 p.m.

**Meeting Location:** CT DEEP

Gina McCarthy Auditorium

79 Elm Street, Hartford, CT 06106-5127

**ATTENDANCE**

<b>Council Member</b>	<b>Title</b>	<b>Organization</b>	<b>Present</b>
Kate Boucher (on behalf of PURA chair)	Staff Attorney	Public Utilities Regulatory Authority	Y
George Bradner (on behalf of Commissioner Katharine Wade)		Connecticut Insurance Department	Y
Jay Brun (on behalf of David Robinson)		The Hartford	Y
Melody Currey	Commissioner	Department of Administrative Services	N
Garrett Eucalitto	Undersec. For Trans. Policy & Planning	Office of Policy and Management	N
Bryan Garcia	President and Chief Executive Officer	Connecticut Green Bank	Y
T.J. Hanson	Product Director	Thule, Inc.	N
John Humphries	Director	CT Round Table for Climate & Jobs	Y
Rob Klee (chair)	Commissioner	Department of Energy & Environmental Protection	Y
David Kooris	Director of Rebuild by Design and National Disaster Resilience	Department of Housing	Y
James Redeker	Commissioner	Department of Transportation	Y
James O'Donnell	Executive Director	Connecticut Institute for Resilience and Climate Adaptation	Y
Catherine Smith	Commissioner	Department of Economic & Community Development	Y
Lynn Stoddard	Director	Institute for Sustainable Energy	Y
Don Strait	Director	Connecticut Fund for the Environment	Y

<b>Associated Staff</b>	<b>Title</b>	<b>Organization</b>	<b>Present</b>
Tracy Babbidge	Chief	Bureau of Energy & Technology Policy, DEEP	Y
Julia Dumaine		DEEP, Office of Demand	Y
Keri Enright-Kato	Director	DEEP Office of Climate Change, Technology & Research	Y
Jeff Howard	Environmental Analyst	DEEP Office of Climate Change, Technology & Research	Y
Tom Maziaz		DOT	Y
Paul Miller	Deputy Director & Chief Scientist	Northeast States for Coordinated Air Use Management	Y
Jason Rudokas	Policy Analyst	Northeast States for Coordinated Air Use Management	Y

## AGENDA & NOTES

### Welcome and Announcements

*Rob Klee, GC3 chair*

- Chairman House has been named to a new post as the state's Chief cyber Security Risk Officer. Until PURA has a new chair, Kate Boucher, PURA staff attorney, will represent the agency.

### GC3 milestones and timeline

*Keri Enright-Kato, DEEP*

- Since GC3's launch in April 2015 the Council has achieved the following:
  - A total of 18 GC3 or working groups meetings;
  - GC3 Exploratory Report
  - 24 Exploring Climate Solutions webinars
  - Over 25 DEEP speaking engagement about the work of the GC3
  - 3 public stakeholder engagement events
  - Development of the GHG reference case
- Review of updated process timeline October 2016 – April 2017:
  - refine and finalize GHG reduction scenarios in LEAP;
  - conduct economic analysis of scenarios (REMI);
  - review and discuss midterm target(s) and policy options for achieving GHG reduction targets;
  - develop a policy narrative around GHG mitigation scenarios;
  - conduct additional stakeholder outreach and events
- The REMI processes will be iterative – DEEP staff working on inputs and assumptions between meetings with GC3 members providing feedback and guidance throughout.
- Request for discussion of initial GHG mitigation building blocks at November meeting.
- The work of the GC3 is not time bound to the legislative session and it is important to thoroughly review and discuss GHG mitigation options to meet the state's short- and long-term goals.

### Overview of "Let's Go CT" initiatives: impacts on vehicle miles traveled

*Tom Maziarz, Department of Transportation*

- "Let's Go CT" plan outlines vision of "best in class" transportation system and strategy for achieving that vision.
- \$100 billion capital investment will focus on preservation and enhancement of existing system.
- Two thirds for preservation of the large, multimodal, and intensively used system, which is aging and too often in poor condition (e.g., \$25 billion needed for bridge preservation).
- Enhancements will include: improvement and expansion of bus, bike, and pedestrian programs; improvements to reduce highway congestion; improvements for rail access to New York City.
- Implementing the plan is projected to bring significant economic impacts in the form of increased business sales, construction jobs, and permanent jobs.
- Significant changes are possible through changes in zoning codes to emphasize dense development; but the current plan focuses on refinements in existing system rather than fundamental shift in development patterns.

- The plan's impacts on vehicle miles traveled and resulting GHG emissions reductions is approximately -.019% in 2030 and -.017% in 2050.

### **Energy efficiency scenarios — A look at implementing deeper energy efficiency measures**

*Julia Dumaine, CT DEEP, and Jason Rudokas, NESCAUM*

- Current strategies to advance emissions reduction through energy efficiency include:
  - Deeper efficiency through whole-building-system approaches (e.g., Home Energy Solutions);
  - Increased leverage through financing and brokering (e.g., via C-PACE);
  - Stronger building codes and performance standards;
  - Promotion of sustainable energy management as a core value.
- Energy efficiency is a low cost energy resource.
- Downward trends in energy intensity of electricity consumption and in energy consumption per capita and per \$ of gross state product.
- A comparison of Connecticut to other states in the region using intensity indicators demonstrates that Connecticut utilizes energy more efficiently than other states.
- When measuring success of energy efficiency programs it is essential to utilize multiple indicators rather than just one (intensity per GSP, intensity per capita, and annual energy savings as % of sales).
- Energy efficiency investments continue to lead to increased emissions reductions.
- Current status of Connecticut's Lead by Example program: 56 completed projects, 14 project in construction/design phase, and estimated annual cost avoidance of \$2.8 million
- Emission reductions associated with energy efficiency:
  - Reference case already achieving 2.5% reduction in annual electricity and natural gas demand.
  - Under a scenario in which total demand is instead reduced 3.5%, GHG emissions would be reduced 1.14 percent in 2030 and 1.03 percent in 2050.
  - Under an alternative scenario in which demand is reduced 4.5 percent, emissions would be reduced 1.85 percent in 2030 and 1.67 percent in 2050.
- The Council should focus on identifying additional opportunities to increase energy efficiency and identify the mechanisms by which we can actualize deeper energy efficiency — alternative strategies outside of expanding the system benefit charge which currently funds many of the state's energy efficiency programs. Mechanisms such as private financing, competitive markets, regional procurements, competitive state contracting, etc.
- Energy efficiency is helping to curb growth and this is really where the energy efficiency measures make an impact.
- MA achieves annual energy savings of about 3.5%, this is due to overall more spending than CT. There are also some differences in how CT and MA measure and verify their energy efficiency savings which likely contribute to the higher number.
- The capital budget on the positive side has to be balanced with operating subsidy side because it can have a bigger negative impact overall. For instance a slight reduction in the DOT operations budget resulted in fare increase proposals that would drive more people away from public transit than the gains from Let's Go CT in one year. If the operating budget reductions continue then we are looking at proposals that would take 20% of the public transit market

and put them back into cars. We need to have a policy question that looks at sustaining the operating budget.

- The Council should look closely at the transportation sector and identify additional emission reduction strategies since it's such a large piece of the state's overall emissions pie.

### **Public Comments**

#### *Joel Gordes, Environmental Energy Solutions*

- Remember that these are projections only. Has anyone looked at accuracy of past NESCAUM projections? (2) What about CC adaptation/resilience concerns in context of below-grade roads? Is DOT considering increasing flooding risk? (3) The slides are very hard to see, because contrast poor and lighting bad.

#### *Mike Papa*

- Water practices poor. Need to empower local government to teach local populations to be good water stewards.

#### *Mike Morrissey, Alternative Fuels Coalition of CT*

- GC3 needs to focus on interim targets, and transportation is big part of emissions. Propane can get CT to goals. Propane buses are big success story, and CT is among leaders. U.S., Energy Information Administration says propane is now nation's 2<sup>nd</sup> leading export, which is concern for CT because propane can offset petroleum/gas use here. One CT company — Pride — is "building a field of dreams" near Hartford.

#### *James Channing, Pride Limited Partnership*

- 6.5 acres. Auto/truck fueling, including 4 alternative fuels: hydrogen, propane, CNG, EV fast charging. Launch expected in early 2017. Using solar from Hartford landfill and hoping to get gas from landfill .

#### *Robin Woerner, Sierra CT*

- Electric vehicles produce large reduction of emissions. Sierra modeling has shown that 2030 goal requires one-third of vehicles to be zero emissions. CT needs greater exposure to EVs and needs to pay attention to California EV planning/policy development. Zero-emission buses. Funds that will flow from Volkswagen emissions scandal settlement create opportunity for EV deployment. Sierra does not support CNG vehicles as transition.

#### *Ray Albrecht, National Biodiesel Board*

- Funding is key. Vermont Renewable Portfolio Standard embraces renewable thermal and renewable transportation fuels. CT's RPS needs to be adapted.

#### *Philip Dooley, 350CT*

- CT must avoid turning to propane, which is another dead end, just like natural gas. It presents a cancer concern, and massive methane leaks are a serious global warming threat. Should assume that natural gas results in about twice as much methane as EPA numbers indicate. Propane vehicles operate at lower efficiency. CT should go directly to EVs, which represent the future of

transportation. Also need to modify building code to eliminate air conditioning installations. Air-source heat pumps paired with woodstoves and small amount of fossil fuel can cover 100 percent of heating load.

*Jeff Gross, Sierra Club*

Recently found that DC fast charge for electric vehicles in Mystic works well; but charger in NYC not good because time to recharge too long. Need to push for best infrastructure.

*Phil Huerter, Sierra Club, GinzVelo Hybrid Electric*

Many solutions are electric. There is nothing we cannot achieve with right leadership. Germany recently got 50 percent of power from solar, which contrasts sharply with what CT is accomplishing. Where is the imagination? Norway has plan to eliminate combustion vehicles by 2025. We should all have solar roofs by now, and we could be making money in the process. Need right leadership and right incentives. GinzVelo hybrid-electric cycles use batteries and have 100-mile range. DOT's presentation today took too long. CT needs visionary policies and needs to aim to eliminate combustion vehicles.

*Mark Scully, Simsbury Clean Energy and People's Action for Clean Energy*

PACE applauds GC3's leadership and will present award Dec. 12. Doing project with West Hartford and Simsbury to move toward 100 percent renewable energy. That analysis is assessing how much can be done and what modernization of grid will be required. PACE is working at grassroots level to support GC3.

*Jeff Russell, Green Party candidate for Senate, 350CT*

There are lots of tax incentives for electric vehicles and solar photovoltaic systems. Combining these would be potent. Company here makes effective tracking devices for ground-mounted PV, but zoning restrictions are a problem. Propane is "suicide" approach due to leakage from gas fields: 4-10 percent leakage initially and more thereafter.

*Henry Link, Enviro Energy Connections*

(1) Question for DoT: When will 3rd tunnel be started? [Response from Maziarz: Still in design stage.]

(2) When will CES be out? [Response from Babbidge: 2 informational events have been scheduled. Will send notices to GC3 list.]

**NOTE:** Slides are available on GC3 web page: [www.ct.gov/deep/gc3](http://www.ct.gov/deep/gc3)