Meeting Date: Sept. 29, 2015
Meeting Time: 1 p.m. — 3 p.m.
Meeting Location: CT Green Bank
Col. Albert Pope Board Room
845 Brook Street, Building #2
Rocky Hill, CT 06067
## ATTENDENCE

<table>
<thead>
<tr>
<th>GC3 Members</th>
<th>Title</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Robert Klee (chair)</td>
<td>Commissioner</td>
<td>Department of Energy &amp; Environmental Protection (DEEP)</td>
<td>Y</td>
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<tr>
<td>Melody Currey</td>
<td>Commissioner</td>
<td>Department of Administrative Services</td>
<td>N</td>
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<tr>
<td>Bryan Garcia</td>
<td>President and Chief Executive Officer</td>
<td>CT Green Bank</td>
<td>Y</td>
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<tr>
<td>John Humphries</td>
<td>Organizer</td>
<td>CT Round Table on Climate &amp; Jobs</td>
<td>Y</td>
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<tr>
<td>James Redeker</td>
<td>Commissioner of Transportation</td>
<td>Department of Transportation (DOT)</td>
<td>Y</td>
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<tr>
<td>Scott Jackson</td>
<td>Under Secretary for Intergovernmental Policy</td>
<td>Office of Policy Management</td>
<td>Y</td>
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<tr>
<td>Arthur House</td>
<td>Chairman</td>
<td>Public Utilities Regulatory Authority (PURA)</td>
<td>Y</td>
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<tr>
<td>Hermia Delaire (on behalf of Evonne Klein)</td>
<td>Program Manager</td>
<td>Department of Housing</td>
<td>Y</td>
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<tr>
<td>Jay Bruns (on behalf of David Robinson)</td>
<td>Environment Champion</td>
<td>The Hartford</td>
<td>Y</td>
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<tr>
<td>Lynn Stoddard</td>
<td>Director</td>
<td>Institute for Sustainable Energy</td>
<td>Y</td>
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<tr>
<td>Don Strait</td>
<td>Director</td>
<td>Connecticut Fund for the Environment</td>
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<tr>
<td>Catherine Smith</td>
<td>Commissioner</td>
<td>Department of Economic &amp; Community Development</td>
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<tr>
<td>James O’Donnell</td>
<td>Executive Director</td>
<td>CT Institute for Resilience &amp; Climate Adaptation (CIRCA)</td>
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<td>Katharine Wade</td>
<td>Commissioner</td>
<td>Department of Insurance</td>
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<th>Associated Staff</th>
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<tbody>
<tr>
<td>Keri Enright-Kato</td>
<td>Director</td>
<td>DEEP Office of Climate Change, Technology &amp; Research</td>
<td>Y</td>
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<tr>
<td>Paul Miller</td>
<td>Deputy Director and Chief Scientist</td>
<td>NESCAUM</td>
<td>Y</td>
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<tr>
<td>Jeff Howard</td>
<td>Environmental Analyst</td>
<td>DEEP Office of Climate Change, Technology &amp; Research</td>
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<td>Theresa McCarty</td>
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<td>Yale (Environmental Protection Clinic)</td>
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<td>Stefanie Wnuck</td>
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<td>Monica DiLeo</td>
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<td>Yale (Environmental Protection Clinic)</td>
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<tr>
<td>Tom Maziarz</td>
<td>Bureau Chief</td>
<td>DOT, Bureau of Policy and Planning</td>
<td>Y</td>
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<tr>
<td>Jessie Stratton</td>
<td>Director of Policy</td>
<td>DEEP</td>
<td>Y</td>
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<tr>
<td>Tracy Babbidge</td>
<td>Bureau Chief</td>
<td>DEEP, Bureau of Energy and Technology Policy</td>
<td>Y</td>
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<tr>
<td>Kate Boucher</td>
<td>Staff Attorney</td>
<td>PURA</td>
<td>Y</td>
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<tr>
<td>Shannon Laun</td>
<td>Energy &amp; Environment Attorney</td>
<td>Connecticut Fund for the Environment</td>
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AGENDA & NOTES

Welcome and Review
Robert Klee, GC3 Chair

- Welcome, Progress since July 10th kickoff meeting, review meeting agenda
- Thank you to Brain Garcia and the CT Green Bank for letting the GC3 use the room.
- Overview of climate-related events since the July 10 kick-off meeting:
  - Local: The municipal forum, organized by the Institute for Sustainable Energy, took place on Sept. 7 at Middlesex Community College. The event shared success stories of towns and the many things they are doing, highlighted work of clean energy task forces, and demonstrated that CT towns are working hard.
  - State: CT has signed a resolution of 39th Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP), which establishes a GHG reduction goal of “at least 35% to 45% percent below 1990 levels” by 2030.
  - National and international: Gov. Malloy attended the U.S. – China Climate Leaders Summit. The Governor reaffirmed Connecticut’s commitment to reducing harmful carbon emissions linked to carbon change. Outcomes of the summit included a U.S. – China Climate Leaders Declaration signed by a diverse set of U.S. cities and states, including CT. It was announced today (9/29/2015) that Connecticut signed on as a founding member of the International ZEV [Zero Emission Vehicle] Alliance, which aims to accelerate the transition to electric vehicles globally. In addition, the Pope was in New York City.

Review of the agenda:
- Discuss the progress of the two working groups. The focus will be on the groups’ reporting their current efforts back to the full GC3.
- Information on the GC3 website and overview of future meeting dates.
- Public comments.
- Review of administrative procedures — Signing in for this meeting, accessing materials on www.ct.gov/deep/gc3, making oral comments today, submitting written comments, signing up for GC3 e-mail distribution list.

Leadership, Accountability, and Engagement Working Group (LAE) update and discussion
Bryan Garcia and Scott Jackson, LAE co-chairs

- Review of LAE meeting on August 28, 2015 [slides 5 - 11]
  - Tried to identify the big picture for the group — what does the group need to do, when do we need to do it, and how are we going to do it?
    - Created tools and had the DEEP team put together factsheets and slides. These should be taken advantage of and used to communicate to our various stakeholders.
  - David Robinson of The Hartford raised a good question: Step back and ask, what do we think the world is going to look like in 2050? This was a very important insight and take away from the meeting.
  - Conducted a whiteboard exercise to brainstorm ideas in order to define “leadership”
    - Commitment, visionary/inspiring, innovative, inclusive, accountable [Slide 8]
    - The exercise will provide the framework for the work of the LAE.
- The LAE working group chairs submitted a proposal to the Yale Environmental Protection Clinic for an interdisciplinary team of students to undertake a semester-long research
project to facilitate LAE’s work [Slide 9]. Three students from Yale selected our project and will be helping LAE.

- Theresa McCarty – A first year School of Forestry, MEM student, Theresa has traveled all over the world and lived in China. She is an energy and sustainability consultant in Hartford and feels this project blends well with her work.
- Stefanie Wnuck – This is Stefanie’s second year at the School of Forestry. She interned with the DEEP’s Office of Climate Change last summer and is very interested in the topics of the project.
- Monica DiLeo – Monica is from Cheshire and is a senior at Yale, majoring in Environmental Studies. She is interested in environmental policy.

- One way LAE is trying to broaden the conversation is through the Exploring Climate Solutions Webinar Series.
  - Webinars spotlight leadership, engagement and accountability examples in CT and across the country.
  - Kicked off on Sept. 22 with a webinar on Stamford 2030 District.
    - 65 registrants, 45 attendees, and 14+ questions
  - BGreen2020 (Oct. 30) and GoNewHavenGo (Oct. 23) are next

- Stakeholder Engagement Workshop
  - Week of Nov. 16 or 30.
  - Invite stakeholders from across CT to design and develop a stakeholder engagement process for the near-term and long-term.
  - Focus on trying to get wide-variety of stakeholders not just the usual suspects.
  - John Humphries has been directly involved in the engagement workshop planning; would anyone else like to get involved?

Discussion:
- How can we recruit businesses to participate in the stakeholder workshop?
  - Many options for expanding involvement of business community. Catherine Smith will be happy to help.
  - Need separate strategies for manufacturers and service providers.
  - Also need attention to employee leaders.

Analysis, Data, and Metrics Working Group update and discussion
James O’Donnell and Robert Klee, ADM co-chairs

- Review of meeting on September 16, 2015 [slides 12-18]
  - Review of objectives: technical modeling, policy assessment, metrics and indicators [slide 13]
  - How do we go about setting goals?
    - Connecticut has a 2020 reduction goal to meet, but is the accounting framework set up in the right way to answer the question?
    - How much different would the targets look like if we used a consumption-based accounting system?
An In-state based inventory attributes emissions strictly by the location of their emission: all emissions physically released in CT belong to CT.

Consumption based accounting looks at what is consumed in CT: all emissions caused by the consumption of goods and electricity in CT belong to CT, regardless of where they were physically emitted.

Thinking about these 2 accounting methodologies brings up a big question – where is the State’s sphere of influence? In the example of electric generation – do we have more influence to change electric generation within the state or is a regional approach more appropriate?

The state of Oregon uses both consumption and generation based accounting methodology. We need to find an approach that makes the most sense for Connecticut and which allows us to develop the most appropriate policies to reduce emissions.

- Review of NESCAUM scope of work for 2015 and 2016 [slides 15-16]
  - Phase 1 through December 2015, Phase 2 through June 2016, and phase 3 through December 2016
  - In depth review of Phase 1: Model examples of technology deployment needed to achieve future GHG targets
    - Examples shown will not capture innovations in technology, as that is not really possible; but it will take into account milestones, and at those times the plan can be reassessed. The REMI model (developed by Regional Economic Models, Inc.) will be used.
    - Do not have the resources or abilities to do economy-wide consumption based accounting of GHG emissions, but NESCAUM could look at the electric sector consumption versus generation.
    - Massachusetts and Rhode Island are both developing climate plans. Rhode Island is using the LEAP tool and doing what we are; Massachusetts is already reexamining its plan.
    - NESCAUM plans to keep GC3 informed on regional issues, including regional goals.
    - Results will be presented in January of 2016.

Q&A with NESCAUM
- What are MA’s and RI’s schedules?
  - Massachusetts is revisiting its 2020 target within the next 6 months, as it is not going to hit its target; currently not looking at 2050. RI’s schedule is through mid-2016. They too are looking at 2050, with a 2035 interim goal by statute.
- The pilgrim nuclear power plant is in trouble, how does this fit into NESCAUM’S analysis?
  - This eventuality can be put into the model, if needed.

- ADM and the Exploring Climate Solutions Webinar Series [slide 17]
  - Oregon has come a long way on a full consumption-based accounting system — the subject of an upcoming webinar.
  - ADM is looking to bring in other groups to the webinars; ideas include the Transportation Climate Initiative (TCI); Regulatory Assistance Project, and the Netherlands electric
vehicle deployment strategy. If you have any more ideas that would be helpful for the metrics/data side of GC3’s work, please let the ADM work group know.

- Exploratory Report [slides 18-19]
  - Description of GC3 and exploratory phase (July-Dec. 2015)
  - Description of the ADM working group, NESCAUM, meetings, webinars, etc. Discussion of analysis conducted (what, why, how), results, and recommendations
  - Description of the LAE working group, Yale clinic support, meetings, webinars, stakeholder, workshop, etc. Discussion of analysis conducted (what, why, how, results) and recommendations

Discussion:

Q: Comment from the audience: There has been mention of health benefits and quality-of-life benefits. How do you create a boundary around those other benefits? Also reduced driving time?
A: Response: At some point you must draw a line, you can’t model everything. You can get a sense of the direction from the exploratory phase and then evaluate in a few years.

Q: Should we begin the process of identifying measures to reduce emissions? What are some options we have to actually start reducing emissions?
A: Can create a list organized by sector, but we really aren’t at a stage where we are going to be looking at specific policies for emissions reductions. After December and NESCAUM’s preliminary analysis we will be in a better position to look at specific policies in 2016.

Comment: We don’t have to have perfect analysis, and right now is a time of significant momentum, given the Pope’s actions, China’s actions, and advances in technology. The council’s lifespan is not unlimited. This is a year that we can start to have that impact even if our actions aren’t completely refined.

Comment: Connecticut is not the first state to look into these issues. We can put other states’ work on the table and investigate further.

Comment: We can take intermediate steps; we don’t have to make our policies for 2040 now.

Comment: There has not been any talk on adaptation and resiliency. We are not there right now, but we need to make sure we get around to addressing those issues.

Comment: There is no discussion similar to the GC3 happening in the transportation sector.

Q: How to do we all engage in the decision making process?
A: There will be a menu of options to choose from, just without full knowledge of co-benefits and job creation, but we can still act in the absence of complete information.

Comment: We could pick a CT business or town and use them as a case study — How are they understanding what we’re trying to accomplish? This allows us to know what it’s going to take in a very practical way. We don’t want a leader, we want it all — what is working, what isn’t, why, what’s in the way?

Q: Thinking of a 2030 and 2040 milestone alongside of 2020, do we want to redefine our 2020 goal?
A: The 2020 milestone is a statute.
Q: Should we be looking at a specific number target we’re going to hit by 2030, or should we be looking at ranges?

Comment: Support for 2030 and 2040 benchmarks, as well as 5 year check-ins.

Comment: Would like to hear the Massachusetts story regarding setting a target and what happens if you miss it. Maybe the leadership group should look not just at successes but at what happens when you fail as well.

Q: The public health community is not represented on the GC3. Are health benefits of GHG reduction something GC3 would like to highlight?

Comment: The Clean Power Plan is based on public health improvement, which suggests GC3 ought to be paying attention to it as well.

Answer: As we look at GHG reductions, we could draw on EPA’s co-benefit risk assessment model that puts a dollar amount on asthma and hospitalizations. This could be a way or illustrating public health benefits and a way for LAE to engage stakeholders.

Comment: For further discussion at the next ADM meeting: Single-number GHG target vs. range of numbers; big milestones and small milestones.

GC3 website and future meeting dates

- GC3 webpage: http://www.ct.gov/deep/gc3
- Three GC3 meetings from now through December
- Three working group meetings from now through December
- LAE working group stakeholder workshop in November
- Webinars will be scheduled on an on-going basis based on speaker availability.
- A big thank you to everyone for personal involvement and engagement, it’s appreciated.

Public comments

Please keep comments within 2-3 minutes and focus on the meeting’s content. Please identify your organization.

- Chris Phelps, State Director of Environment Connecticut:
  We strongly would urge moving towards tough interim targets. The suggestion of revisiting the 2020 target should be on the board. There is a large body of work on the question of economic benefits of early versus late reductions. Maximizing early reductions can have substantial economic benefit for the state. There needs to be aggressive near-term targets, alongside analysis of the economic benefit of making reductions sooner rather than later.

- Gary Bent:
  Glad to see so much enthusiasm. Should bring a person from the Department of Health on board. The State of New York has looked at the health effects of various pathways. At the last ADM meeting, Dr. Miller said he can model the air quality; I think that is an important thing to do. Carbon credits to account for emissions have not worked out for the European cap and trade system. Physicists spend a lot of time modeling, and I caution the council not to act too fast without having a good model to look at.

- Ben Martin, 350 CT:
Holding GC3 meetings in the middle of the day is not good for public input. Some of the meetings should be rescheduled in order to get true public input. All for being leaders and transformative. We should be looking at zero GHG emissions, not 80% reduction. Look at thesolutionsprojec.org. My group is pushing for renewable energy, because it reduces emissions and gives people power to produce their own energy, makes more jobs, and is better for the people and economy. Things need to be done faster than 2050; the longer we wait, the more expensive it becomes. Resilience becomes harder, the more climate change is multiplied. Germany is one of the strongest economies in Europe, it has given citizens power to produce energy themselves, which has made them stronger.

- **Ray Albrecht, National Biodiesel Board:**
  Clean diesel is indeed possible. The Volkswagen situation shows the need for better enforcement of the environmental honor system. They could do better and achieve clean, but it’s a matter of cost measures. Clean diesel is very much possible if we are willing to make it happen and put costs in place.

- **Comment from Caller:**
  - We should be careful in any new infrastructure within 20 feet of sea level. Look at Jane Hansen’s paper, sea level will go up at least 20 ft. We need to keep up with repair and new investments should be at a higher altitude.
  - Nuclear power is not a zero carbon solution. We have to consider it carefully. We should burn our current inventory of fuel. Sodium cool versions and lead cooled versions are not as difficult as many people are saying.
  - We need to do more with wood waste, such as mulch. Methane is more potent than CO₂. If we can burn more wood waste for heating people’s homes or generating electricity, the ash can be spread over our forests to help replace some of our minerals if it is not combined with coal. There is sand from Sandy still on the streets because the state owns it and we can’t use it to heat our home. We need to encourage people to have clean burning wood stoves; this should be everybody’s goal.

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