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**Re. GC3 GHG reduction draft recommendation
Comments, Dec 12, 2018**

General comment - Prioritize and implement strategies based on relevant independent science and apply the principle of “first do no harm.” The best policies are practical, inexpensive, maximize climate and community resilience, improve health, create jobs, and address existing problems.

Which strategies do you feel should be prioritized, and Who will implement these strategies?

1. Transportation – *implementation by DOT, emissions benefits calculated by DEEP*
Please review the bus schedule in the Hartford region and others with an urban hub to consider the needs of the larger community, including a dynamic young workforce that wants to 1) be in/near a city, 2) have a high quality of life, and have great access to nature and recreation.

Right now unless you are traveling to and from one of the towns immediately adjacent to Hartford the schedule does not work. It serves “standard” weekday commuters – even though many people have flexible schedules. A functional transportation system has to be there when you need transportation.

Some of the issues -

- The last bus leaves town at around 8 am to come to Hartford
- The last bus leaves Hartford to head home at about 630.
- Typically there are 0-2 busses running midday and busses on the weekend.
- The last morning bus is packed and often the parking lot is full at the last stop.
- There are no busses that travel on major roads that may have many businesses and apartments simply because they are not on the direct route to Hartford.
- The public does not know about free services like an emergency ride home from DOT,

Some of the problems created by this schedule -

- If you have to get a child off to elementary school you may not make it to the last bus in the AM.
- If you are able to take a bus in the AM you could not get home to meet the children after school.
- You can't go to dinner or enjoy downtown Hartford after work because the last bus leaves by 630.
- You cannot go to a matinee, or a baseball game.
- People living in Hartford can't use public transportation to get out and visit the smaller towns, state events and the state parks except for odd hours on M-F.

The busses are nice, the drivers are professional, and the fare is reasonable. It has the bones of a great system. This is an underleveraged opportunity for economic development, improved public health, and environmental stewardship. Increasing ridership significantly is a very achievable goal that will help us meet GHG goals.

Please have the schedule evaluated - even small changes combined with the right message can make a difference.

2. Maximize the Best Local Energy Solutions – *implementation and assessment by DEEP*

Zero-carbon is a misnomer. All energy options produce some emissions during their lifespan (transportation, land use, manufacturing, etc). We cannot use bad math with something as serious as climate change. It is scientifically dishonest. Climate-related math and science is dynamic and must come from organizations and scientists that have no conflict of interest.

We should evaluate projects with a life-cycle analysis and represent “net carbon.” Based on a principle of “first do no harm” location matters a lot - and not all renewable energy technologies are equally beneficial. Net carbon is a combination of emissions and negative emissions.

For public policies we should apply a metric of “net value” – not just net carbon. Reducing the complexity of life - or even a tree - simply to a carbon value is not helpful. Trees themselves are a unique case - they reduce carbon AND reduce flooding – often there are tradeoffs - a project that reduces net carbon but increases the risk of flooding may not be a good one. Flooding is one of the biggest climate resiliency threats New England faces, and it is predicted to worsen due to increased soil saturation and storm frequency and severity.

Some specific GHG action items

- instead of a carbon “tax” consider “net value” for the public good – it’s more honest and inclusive beyond carbon and it could include trade-offs and negative emissions. People don’t want another tax, and they do want to be aspirational and do something positive. This could get significant/better public uptake.

- renewable energy fund - ***efficiency and conservation come out on top*** consistently on energy saved and jobs created. This is an investment that pays off for many years and should be a first priority.

- incentivize on site and distributed renewables like ***solar thermal, heat pumps, and on site solar panels*** – these are the best choices for making communities more resilient and less grid dependent. They provide good local jobs and this should be factored into the “net value.”

- Using local distributed energy ***prevents the loss of energy that always occurs with pipeline-based and grid based-transmission*** and thus makes it easier to achieve GHG goals.

- heat pumps and solar thermal are proven domestic technologies. ***Ground source heat pumps are particularly important - air conditioning is expected to be the biggest driver of increased energy demand.***

We need to **incentivize on-site options most aggressively** - they do not take up our farmland or our forests and they do not require mining rare earth metals or shipping panels from Asia.

3. Land use – increase negative emissions – *assessment and implementation by DEEP*

Maximizing the negative emissions of our working and natural land in meeting GHG goals and promoting climate resilience is a goal of the US Climate Alliance.

Negative emissions were overlooked in this report and can be increased rapidly and efficiently by purposefully growing forest ecosystems – particularly older forests. Research shows that big trees and older forests store a lot of carbon, and, most importantly, sequester more carbon each year than younger forests. A forest is dynamic and self-sustaining and the average tree in our forests can live for over 200 years. Mitigating climate change, protecting biodiversity, preventing flooding and promoting public health represent greatest public good that our forests can serve right now.

What is the best way to engage you and other stakeholders as we move to the implementation phase?

Focus on specific gaps in knowledge and broad dissemination of specific and new information

1. Public transportation is a mindset and *we need a system that works for everyone*.
2. Do not reduce climate change and climate resilience to talking points like “zero emissions” and “no fossil fuels.” We need to understand the best options, using a full lifecycle analysis. Using our farmland or cutting down forests for solar panels is not the best option. Burning wood is worse than fossil fuels, and burning anything is not a good idea and should not be subsidized. We have better options and CT has enough bad air days.
3. Do the best things most aggressively (and talk about them) even if they do not seem exciting.
4. Saving money AND doing the right thing is the most exciting public policy of all! Whenever possible this is a great message!

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