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**To:** Natural and Working Lands Group

**From:** Denny Gallaudet, Sierra Club Maine

**Date:** May 13, 2020

**Re:** **Feedback to Natural and Working Lands Group's "NWL" draft strategies that pertain to forestry, agriculture and natural lands**

Co-Chair Commissioner Beal, Co-Chair Abello and members of the NWL, my name is Denny Gallaudet. I am Chair of the Maine Woods Team of the Maine Chapter of Sierra Club. Sierra Club represents over 18,000 members and supporters. On its behalf, I offer the following feedback on the NWL draft strategies.

Scope of work should limit use of carbon incentives/offsets to achieve carbon neutrality

The draft scope of work states that the NWL should create "incentives for different levels of forest landownership to capture carbon" and "explore new opportunities to support increased resiliency and carbon sequestration" for agriculture.

PL476 - An Act to Promote Clean Energy Jobs and To Establish the Maine Climate Council - states that "By January 1, 2050, the State shall reduce gross greenhouse gas emissions to at least 80% below the 1990 gross annual greenhouse gas emission level." Gross GHG emissions were 21.23 MMTCO2e so must be reduced outright to 4.24 MMTCO2e. Neither forest or agricultural carbon sequestration can be counted as part of the 80% reduction.

Governor Mills 2019 Executive Order - To Strengthen Maine's Economy and Achieve Carbon Neutrality - states that "Maine shall strive to achieve a carbon neutral economy no later than 2045." The Governor's Office of Policy Innovation and the Future via the Climate Council shall among other duties "coordinate the advancement of policies to advance the sequestration of carbon emissions."

While not explicit, it seems obvious that the Climate Council will be considering natural systems such as forest and agricultural carbon sequestration to bring the remaining 20% of emissions to zero, pursuant to the Executive Order. The Order specifically references "carbon sequestration through the state's natural resources."

If this is the case, then the NWL strategies should explicitly so state.

Getting to zero could be achieved in whole or in part through crediting forest or agricultural carbon offsets. But these offsets cannot be an accounting fig leaf to achieve carbon neutrality on paper. They must have substance. In Sierra Club Maine's view, they must be

1. additional,
2. permanent,

3. verifiable,
4. certified by independent review,
5. enforceable.

An example of offsets with substance would be those developed under the RGGI Improved Forest Management Protocol.

In addition, it is Sierra Club Maine's view that the use of carbon offsets to get to zero should be limited. The draft strategies are silent on what portion of the remaining 20% to achieve carbon neutrality can be defrayed by carbon offsets. Sierra Club Maine recommends that this portion should be limited to not more that 10% of gross GHG emissions.

In addition to being sensible policy, a 10% limitation has a material impact on the scale and reach of the strategies themselves.

For example, a 10% limit would result in the need for 2.1 MMCO2e in offsets annually. This represents approximately 15% of the current level of carbon sequestration from Maine's forest lands as shown in the State of Maine's Carbon Budget Version 1.0. Such a modest percentage would not materially effect the supply of wood products nor would it result in much if any risk of leakage.

In fact, if devoted entirely to carbon sequestration and not harvested, the roughly 800,000 of Maine's public lands could generate the lion's share of such offsets. Such offsets could be auctioned off as needed to emitters for whom carbon-free alternatives are limited such as paper mills or lobstermen.

<u>Strategy 1 is critically important.</u>

While blessed with abundant fields and forests, in comparison to many other states a very small percentage is owned or controlled by the people of Maine. In addition to multiple environmental co-benefits, conserved lands help Maine mitigate climate change. Land in private hands can at the discretion of the owner be changed to uses such as development so that such benefits can be lost, perhaps permanently.

As more lands come under public ownership or become subject to easements, their role in sequestering carbon can supplement the importance of public lands in achieving Maine's goal of carbon neutrality by 2045.

<u>Funding for Strategy 2a should be market based and not fall on Maine taxpayers</u>.

Developing a voluntary incentive-based program forest carbon program for small woodland owners is a laudable objective. Current carbon programs have been in existence for a number of years and appear to functioning well. However, such programs like the cap and trade system of

the California Air Resources Board are complex, costly to put together and favor landowners who own 3,000 or more acres. Several such landowners in Maine have already developed programs for the California compliance market such as the Passamaqoddy Tribe and the Nature Conservancy. Access to programs does not appear to be an issue for larger Maine landowners.

However, due to cost and complexity, access has proven to be a stumbling block to small landowners – estimated to own approximately 40% of Maine's forest land. Strategy 2a will hopefully find approaches to reduce these barriers to access.

Such approaches should have the same substantive features as those mentioned above for carbon offsets generally.

In Sierra Club Maine's view, funding for incentives and cost sharing of such programs should not fall directly on Maine taxpayers via appropriations from the General Fund. First, such appropriations could crowd out other crucial programs such as Tree Growth. Second, the carbon sequestration benefits of this program would only indirectly be paid for by the emitters of carbon pollution. Third, this source of funding would not be progressive but regressive in proportion to its reliance on the sales and other regressive taxes and fees imposed by the state. Lastly, the incentives would be established by regulatory rule making and not fully responsive to changes in the cost of carbon pollution.

A better approach would be to rely on the well developed cap and trade structures to fund negative (acid rain) and positive (carbon offsets) externalities. These structures permit market forces to help find the efficient balance between supply and demand.

By way of example, one possible source for landowner payments could be sale of Renewable Energy Credits (RECs) to electricity suppliers under Maine's Renewable Portfolio Standard.

Under Maine's deregulated system, CMP and Emera provide only distribution services for electricity. Electric power is supplied by various suppliers such as Nextera in a competitive market. In order to sell electric power in Maine each supplier must annually certify to the PUC that its electricity meets the RPS standard. Currently this is 40% and will be increasing to 80% by 2030. Almost all of this requirement is met by the suppliers purchasing RECs from generators of renewable electricity. The generators must gain prior PUC approval in order to sell their RECs. Generators range from hydro to wind farms to biomass; the lion's share of the latter are Maine's paper mills. A REC equals 1 MWh and sold for an average price of $16.04 in 2017 (the latest year reported by the PUC).

Last year the Legislature approved the use of thermal REC's for compliance with RPS. These would available for sale by CHP and similarly efficient operations using a conversion rate from BTU's to MWh. The idea is that while not electricity per se, a thermal REC would offset the CO2 emissions from fossil fuel electric generators.

Sequestered carbon from improved forest management likewise offsets the CO2 emissions from fossil fuel electric generators - thus, forest carbon RECs. Under the proposed Maine Carbon Management Program, after applying a 25% buffer for unintentional reversals and leakage, a forest carbon REC could be assumed to sequester 0.75 MTCO2e.

Almost all fossil fuel generated electricity sold in Maine comes from natural gas fired plants. These emit around 0.5 MTCO2e per MWh. A forest carbon REC would thus offset .75/.5 = 1.5 MWH for a notional value of $16 x 1.5 = $24. This is of course quite a bit higher than the compliance and voluntary markets for carbon offsets so there would be a margin for a greater buffer, etc.

The advantage of a forest carbon REC is that 1) it parallels the already approved thermal REC program, 2) would not carry a direct fiscal note as does Tree Growth , 3) is progressive as the cost falls on rate payers whose usage generally rises with ability to pay and 4) is subject to market forces for price discovery.

<u>Strategy 4d should require that biomass for heat/power projects be sourced from sustainably managed forests.</u>

Sierra Club Maine believes that biomass projects can be sustainable, but that many biomass projects are not. We are not confident that massive new biomass energy resources are available without risking soil and forest health, given the lack of commitment by governments and industry to preservation, restoration, and conservation of natural resources.

All fossil fuels and most biomass technologies aggravate global warming by producing CO2. Unless very carefully managed, biomass operations may not be sustainable and may add to the CO2 problem because of damage to soil health or failure to assure sustainable regrowth of the fuel stock. Biomass is in principle renewable, but native soils hold substantial carbon, mostly in root mass, and while it is possible to preserve soil carbon balances, conventional agricultural practices rarely do so.

Sierra Club Maine would oppose heat/power projects which rely upon ecologically destructive clear-cutting, in-wood chipping where excessive amounts of biomass are removed from the land, and conversions to non-native species which undermine native biodiversity. We oppose biomass energy production on any land which relies upon logging activities that are unsustainable, or that jeopardize fully functioning forest ecosystems.