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Maine Chapter

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To: Joint Standing Committee on Environment and Natural Resources

From: Denny Gallaudet, Sierra Club Maine

Date: March 13, 2019

Re: Testimony in Support of LD 797 An Act to Limit Greenhouse Gas Pollution and Effectively Use Maine's Natural resources

Senator Carson, Representative Tucker and members of the Committee on Environment and Natural Resources, my name is Denny Gallaudet. I am Co-Chair of the Maine Chapter of Sierra Club Maine Energy Team. Sierra Club represents over 18,000 members and supporters. On its behalf, I am speaking in favor of LD 797.

After eight years of delay and denial, Maine is once again taking on forcefully the severe challenge of greenhouse pollution of the atmosphere. As documented by countless studies and witnessed by our own eyes, such pollution if left unmitigated and unchecked will severely damage the global ecosystem.

Maine has tackled severe environmental challenges in the past and has overcome them. Led by Senator Muskie and others, Maine has largely cleaned up its rivers, mitigated the effects of acid rain and adopted sustainable forestry practices – to name a few such triumphs. Maine has often led the nation in these efforts. I make my home on Casco Bay and have witnessed the recent return of the bald eagle and the minke whale to these waters.

Sierra Club applauds the bold but sensible goal of LD 797, which is to reduce net annual greenhouse gas emissions levels by 2050 to at least 80% below the 1990 annual greenhouse gas emissions level. LD797 notes that even further reductions could be necessary.

And a bold and challenging goal needs a forceful and measurable plan of action. LD797 provides this as well, charging the Department of Environment Protection will developing a Climate Action Plan. This plan will examine multiple pathways to achieving the goal.

Sierra Club strongly endorses the wisdom of following multiple pathways and avoiding the temptation of picking winners. One need only reflect on the recent decade of developments in solar photovoltaic generation of electricity (“Solar PV”). Ten years ago, Solar PV was derisively referred to as “bling for rich people.” It has now become, along with wind, the lowest cost form utility scale electric generation.¹ Distributed Solar PV is also financially attractive at the household and small business level in comparison to grid-tied electricity. Further, distributed Solar PV plus storage now bids fair to mitigate the intermittency concerns with this type of electric energy.



Access to carbon free electricity will surely be a key element of Maine's Climate Action Plan. Maine has a leg up on other states because of its legacy hydro and biomass generation. According to the Energy Information Administration, in 2017 close to 80% of Maine's electricity generation is renewable and carbon free. Maine will be able to build on this base and, cost effectively, add new renewable electricity to facilitate the decarbonization of the transportation and space heating sectors.

LD797 wisely notes in its title that reducing greenhouse emissions is only one side of the coin. The other side is effectively using Maine's natural resources to clean unwanted carbon pollution from the atmosphere. As the most heavily forested state in the nation, Maine can and surely will take a leadership role in "encouraging the use of natural systems to reduce net greenhouse gas emissions." A groundbreaking study by the Nature Conservancy has shown that wise use of natural systems can contribute up to 20% of the reduction of carbon pollution needed by 2050.¹ Also, Drawdown places good stewardship of temperate forests as 12th out of 80 climate action pathways – above EVs and heat pumps.²

To present this case I would like briefly to tell the Committee my own story. I live in Cumberland, ME and have a 30-acre woodlot around my home. Like many woodlands in Maine, this was initially cleared for pasture and hay and then let come back into woods in the 1920's with the coming of the automobile. The woodland is enrolled in tree growth and is cut periodically for firewood and saw logs. At the recent 10-year update of my management plan I asked the forester to take the extra step of estimating the carbon stocking per acre and its annual rate of carbon sequestration.

The forester's conclusions were a revelation to me. Not only was the carbon stocking much higher than average due to modest harvesting over the years, but the annual sequestration was 4.7 MTCO₂e per acre. As the CO₂ emissions of the average Maine household is around 20 MTCO₂e, just 5 acres of such woodland would reduce this household to net zero.

As a further exercise, my forester and I completed the application to enroll the woodlot in the California compliance market for carbon offsets arising from improved forest management practices. This was complicated but not too costly. However, as has been widely reported, the follow-on certification protocols were cost prohibitive for so small a woodland due primarily to lack of local professional help.

¹ Forgione, J et al (2018) Natural climate solutions for the United States Science Advances 14 Nov 2018 : eaat1869

² Hawken, P ed. (2017) Drawdown: the most comprehensive plan ever proposed to reverse global warming New York, NY: Penguin Books



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Herein lies an important and promising opportunity for the Maine Climate Action Plan. What is needed is a robust infrastructure here in Maine to permit small and medium sized woodland owners to be compensated fairly for carbon sequestration. As with large landowners, the compensation could provide an additional source of revenue along with sales of saw logs and biomass. It would also support higher value products now emerging like bio-based textiles and engineered building products that also sequester carbon. Perhaps creation of a Maine-only cap and trade market could emerge for timber carbon offsets. While in recent years Maine forests have been serving as a carbon sink, without appropriate incentives and support they could easily reverse direction.³

Many other exciting pathways are now visible for natural systems such as regenerative agriculture.

In summary, the Sierra Club Maine Chapter strongly supports LD797 and believes it holds great promise for addressing the pressing problems of greenhouse gas pollution and climate change.

We ask this committee vote LD 797 Ought to Pass.

³ John S Gunn, Thomas Buchholz; Forest sector greenhouse gas emissions sensitivity to changes in forest management in Maine (USA), *Forestry: An International Journal of Forest Research*, Volume 91, Issue 4, 1 October 2018, Pages 526–538