

To: Joint Standing Committee on Energy, Utilities and Technology

From: Denny Gallaudet, Sierra Club Maine

Date: May 16, 2019

Re: Testimony in Support of LD 1711 An Act to Promote Solar Energy Projects and Distributed Generation Resources in Maine

Senator Lawrence, Representative Berry and members of the Committee on Energy, Utilities and Technology, my name is Denny Gallaudet. I am Co-Chair of Sierra Club Maine's Energy Team. Sierra Club represents over 18,000 members and supporters. On its behalf, I am speaking in favor of LD 1711.

After eight years of delay and denial, Maine is once again taking on forcefully the severe challenge of greenhouse gas ("GHG") 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.

The recent decade of developments in solar photovoltaic generation of electricity ("Solar PV") demonstrate that it will be one of the key players in reducing GHG pollution.

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 of 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.

LD 1711 will likely stimulate demand for smaller distributed Solar PV projects that opt for the simplicity of net metering. It will do so by increasing the cap to 1 MB and number of participants from 9 to 200. Beneficiaries of this loosening of size restrictions would include, for example, community solar farm projects and municipalities with multiple meters.

For larger business and municipal projects, LD 1711 will employ a market mechanism to bring such projects forward on a cost effective basis. Sierra Club supports this approach given the rapidly evolving technical and cost parameters of Solar PV. New approaches and designs seem to be emerging on a daily basis that enhance the value proposition for consumers.

As an example from Vermont, Green Mountain Power recently completed a pilot project whereby battery backup was bundled with the solar array. From the customer's perspective, the battery system provides – akin to a stand-alone generator – a substantial period of backup in the

¹ Lazard (Nov 2018) Lazard's Levelized Cost of Energy Analysis – Version 12.0

https://www.lazard.com/perspective/levelized-cost-of-energy-and-levelized-cost-of-storage-2018/



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event of an outage on the grid due to inclement weather or other causes. From the utility's perspective, it has access to the stored power on the battery for a period of time agreed to by the customer. Access to this stored power on demand gives the utility access to reserve power to manage periods of peak demand. During the pilot, Green Mountain Power was able materially to shave peak demand during summer daylight hours and save on power costs to the benefit of all ratepayers.

As a further example, national trends point to sharply declining costs of Solar PV plus storage systems in comparison to stand alone Solar PV. Deployment of the former helps grid managers mitigate the so-called duck curve problem² whereby solar power meets and even exceeds demand during the day but is unavailable in the evening. 4 hour battery storage addresses this difficult challenge.

For these and other reasons, distributed Solar PV is now and will increasingly be an important and valuable segment of a well-designed GHG free electrical system for the State of Maine.

In summary, the Sierra Club Maine Chapter strongly supports LD 1711 and believes it holds great promise for addressing the pressing problems of GHG pollution and climate change.

We ask this committee vote LD 1711 Ought to Pass.

² Roberts, D (8/29/2018) "Solar power's greatest challenge . . looks like a duck" https://www.vox.com/energy-andenvironment/2018/3/20/17128478/solar-duck-curve-nrel-researcher