



# SIERRA CLUB

## MAINE CHAPTER

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To: Energy, Utilities, and Technology Committee  
From: Marina Melo de Miranda and Patricia Rubert-Nason, Sierra Club Maine  
Date: 04/13/2023  
Re: **Testimony in Support of LD 952: An Act to Create a 21st Century Electric Grid**

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Senate Chair Lawrence, Representative Chair Zeigler and members of the Energy, Utilities, and Technology Committee, I am testifying on behalf of Sierra Club Maine, representing over 22,000 supporters and members statewide. Founded in 1892, Sierra Club is one of our nation's oldest and largest environmental organizations. We work diligently to amplify the power of our 3.8 million members nation-wide as we work towards combating climate change and promoting a just and sustainable economy. To that end, we urge you to pass LD 952: An Act to Create a 21st Century Electric Grid.

The purpose of LD 952 is to modernize the grid. The Governor's Energy Office (GEO) must hire a third party consultant to create a distribution system operator (DSO) to operate decentralized energy generators (including but not limited to wind, solar, and battery systems).

A 21st century electric grid is one of the ways we can address climate change. Most of the energy sources will be renewable energy like solar and wind. Wind and solar are intermittent sources, for this reason we need to pair them up with battery systems so they can store energy for periods without sun and/or wind. To accommodate the predominantly intermittent sources of energy, a new grid design will need to be made.

However, as discussed in a recent Bangor Daily News article<sup>1</sup> Maine's aging transmission and distribution grids are limiting our ability to deploy more renewable energy. Many proposed renewable energy projects have been withdrawn by the developers in recent years due to interconnection costs and delays. And as we increase penetration of renewable energy and move forward with electrification we increase the demands on the electric grid. In the future the grid will need to deliver three to four times as much electricity and the distribution grid will need to carry power in two directions, rather than the single direction it was designed for. All of this will require upgrades to the grid, and improved planning and coordination.

One potentially promising solution to these challenges is a Distribution System Operator (DSO) who would take responsibility for planning and operation of the distribution grid and integration of demand side resources (including distributed energy resources and demand response). However, there are multiple models for DSOs (each with their own pros and cons) and the impacts of a DSO

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<sup>1</sup><https://www.bangordailynews.com/2023/03/23/maine/maine-focus/aging-maine-grid-solar-development-roadblock-joam40zk0w/>

on important considerations like grid reliability and electricity cost are not transparent. Therefore, an analysis to better understand the best approach and its potential implications seems like an excellent first step. In Vermont, Green Mountain Power (GMP) is conducting a pilot in which customers share battery systems to cut power demand during peak hours, saving money for all users. Having batteries shared between neighbors and decentralized could make the grid more resilient<sup>2</sup>. A virtual power plant (VPP), a system in which several energy generators and batteries are controlled by a central operator like a DSO could benefit Maine's grid by making it more resilient and better able to bounce back from any disruption.

We urge you to support LD 952: An Act to Create a 21st Century Electric Grid, so that we can fully explore our options to meet the challenges of increased renewable penetration and electrification and deliver Mainers reduced energy costs and a healthier environment. Thank you for your time and consideration.

Sincerely,  
Marina Miranda and Patricia Rubert-Nason  
Sierra Club Maine

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<sup>2</sup><https://greenmountainpower.com/news/gmp-expands-battery-options-for-customers/>