

SOLAR ENERGY ASSOCIATION OF MAINE

Testimony in Support of LD 1986

An Act Relating to Net Energy Billing and Distributed Solar and Energy Storage Systems

Steven L. Weems, Board Member, Solar Energy Association of Maine

President, Dirigo Community Solar Group

To the Joint Standing Committee on Energy, Utilities, and Technology

May 24, 2023

Senator Lawrence, Representative Zeigler, and other distinguished members of the Joint Standing Committee on Energy, Utilities, and Technology: my name is Steve Weems, Board Member of the Solar Energy Association of Maine (SEAM); also founder and President of Dirigo Community Solar Group (Dirigo CSG), a nonprofit association of 14 small, member-owned community solar farms. SEAM and Dirigo CSG are strongly in support of LD 1986. It would transform the distributed solar generation program into one that has a highly positive benefit/cost ratio and eliminates any ratepayer cost shift from the distributed generation (DG) projects undertaken, when the provisions specified in the bill are implemented. This is an outcome that everyone should be able to embrace as fair and protective of Maine ratepayers. It would accomplish this while honoring the commitments made by prior legislatures to existing, early solar adopters – Maine people, businesses, communities, schools, and others.

Three essential points anchor our position. First and foremost, rigorous economic analysis performed for the DG Stakeholder Group shows that the Distributed Solar and Energy Storage Program specified in Section 1 of LD 1986 **would have a projected Benefit/Cost Ratio of 2.77**. This is extraordinarily positive, reflecting the value of pairing energy storage with distributed

generation. Even without storage, the Benefit/Cost Ratio would be a strong 1.67. Also of great importance, this economic analysis shows **this new DG program structure would eliminate any ratepayer subsidy and reduce electric rates.** Please refer to the chart from the DG Stakeholder Group Final Report at Appendix A, page 5.

Second, by direct reference to the DG Stakeholder Group Final Report, LD 1986 defines this new Distributed Solar and Energy Storage Program (the "Program") as projects between 1-5 MW in size. **Projects in this range account for about 93% of the total pipeline of all DG projects,** as reported by the utilities, as of November 2022. The new Program would be structured so that these projects would provide wholesale energy and other economic values to utilities at a competitively bid price, which would disqualify them as NEB projects. The remaining NEB projects (1 MW or smaller) would be a minor factor in the overall DG category. This means the transformative aspects of LD 1086 for projects in the 1-5 MW range essentially resolve the issue of ratepayer cost shift. See Appendix B (Page 6) to see a chart of the total DG project pipeline, sorted by project size.

Third, while the DG program (currently synonymous with the NEB program) needs to be reformed, it is not the primary driver of high utility bills. The utilities are emphasizing to their customers that high electric bills are caused by energy charges, not their delivery charges. This is where the net costs any of DG (including NEB) incentives are recorded. The specter of \$220 million in ratepayer costs is a fiction. The proof is in the utility rate cases currently before the PUC. CMP is requesting an increase of about \$5 per month (allocation for NEB costs) from the typical residential customer, spread over three years, which is about 3.2% of the average current residential bill. See Appendix C (pages 7-8) for the math of this. The real crises are our continuing reliance on high-priced fossil fuels and the antiquated Maine grid. This said, DG needs to be turned into an asset for all ratepayers, which would be accomplished by enacting LD 1986, while honoring the commitments made by previous legislatures to encourage Maine customers to get started along the path to beneficial electrification.

There are some limited changes to LD 1986 we think the Committee could consider, which do not damper our enthusiasm for the bill. In Section 1, the reference to the DG Stakeholder Group Final Report means the Distributed Solar and Energy Storage Program is designed to apply to DG projects in the 1-5 MW range, with a maximum project size of 5 MW. It might be clarifying to state this explicitly in the bill. We also think it may be desirable to implement some projects that cannot be paired effectively with storage, for some reason, that would still be beneficial to undertake, assuming they meet the test of having more benefits than costs and do not negatively affect ratepayers. Giving the PUC more flexibility in this circumstance would seem beneficial. Perhaps a preference for projects with storage could be considered, allowing for some projects without storage, as long as all projects have more benefits than costs and depress electric rates.

In Section 3, we suggest the list of potential net energy billing benefits to be considered under **Subsection 3209-C, Net energy billing cost recovery, paragraph 1. Definitions**, section B should also include avoided environmental and RPS compliance costs. Also, since an NEB customer by definition pays for a certain share of a project's generation, the customer should continue to be entitled to use this amount of energy at no charge for the value of the energy, thereby leveling this value with the energy charge the customer pays to whichever entity provides electricity to the customer for any load demand the customer may have in excess of the customer's share of his or her NEB project generation.

With or without modification consistent with the foregoing suggestions, we think LD 1986 is the kind of positive breakthrough legislation, with appropriate transitions, to deserve strong bipartisan support. While it does not turn back the clock, which would be egregious, it addresses real issues in a practical and fair way. We urge its favorable consideration by the Committee.

Appendix A

Benefits and Costs of LD 1986 Distributed Solar and Energy Storage Program

There are two basic, distinct types of economic analysis typically undertaken.

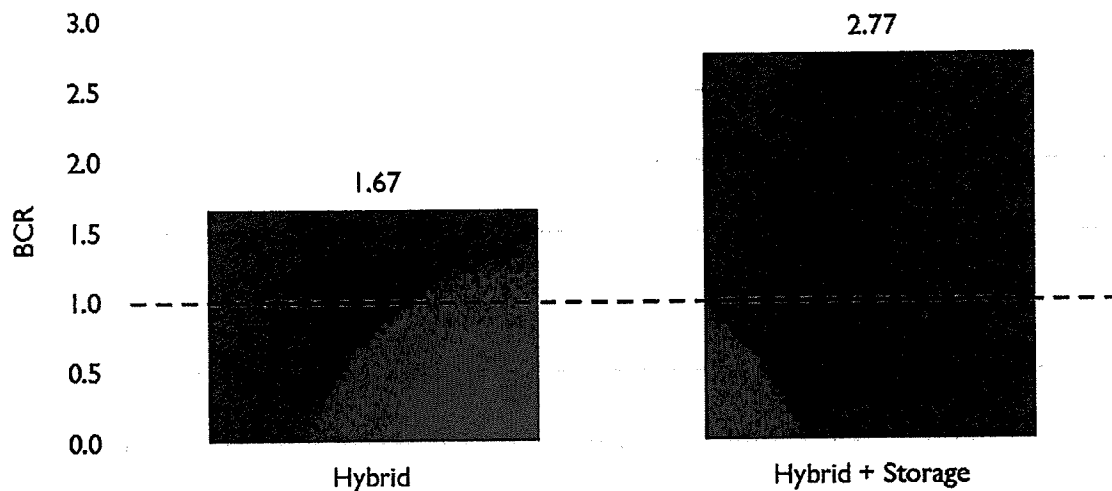
1. Benefit-Cost Analysis. This is a comprehensive analysis that looks at all the benefits and costs of any distributed energy resource (DER), including utility system and societal (general population) benefits and costs.
2. Rate Impact Analysis. The rate and customer bill analyses encompass only the benefits and costs of DER that affect the utility bills of ratepayers.

The foregoing was taken from the work of the economic consultants Synapse Energy Economics (Synapse) and Sustainable Energy Advantage (SEA) included in the Final Report of the DG Stakeholder Group, dated January 6, 2023. This is the latest and most comprehensive analysis of the net benefits and costs, and ratepayer impact, of certain distributed energy resources. This methodology is used to analyze all types of distributed generation (including NEB programs).

- This specific work was oriented toward the charge of the Governor's Energy Office and the DG Stakeholder Group to come up with a successor distributed generation (DG) program, so this analysis is directly relevant to Section 1 of LD 1986 regarding the Distributed Solar and Energy Storage Program.
- It definitely is possible to quantify benefits, costs, and ratepayer impacts, despite the difficulty assigning a value to things like clean air and reduced climate change, especially when comparing the merits of future options.
- The DG Stakeholder Group effort resulted in a recommendation for a successor distributed generation program that benefits all Maine people, without or with energy storage, with Benefit/Cost Ratios ranging from 1.67 to 2.77. This new program design also would benefit all electric ratepayers, by depressing electric rates somewhat. This is the Distributed Solar and Energy Storage Program contained in LD 1986. See the chart on the following page.

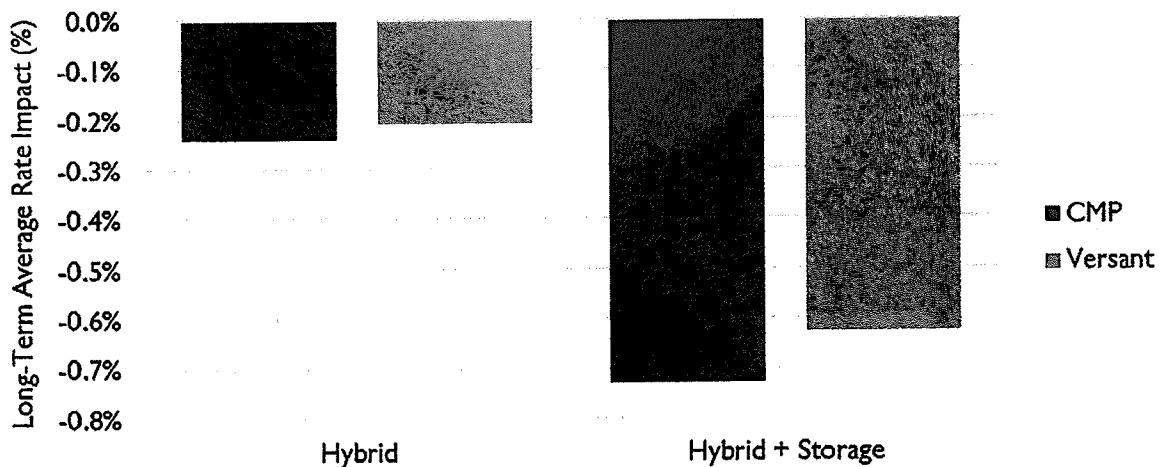
Consistent with the figure above, the increase in costs to deploy storage are sufficiently outweighed by the increase in benefits, demonstrated by the BCR's for the two options shown below.

Figure 18. Benefit Cost Ratios of Hybrid and Hybrid + Storage Case



The same pattern can be seen for long-term rate and bill impacts. The Hybrid + Storage Case results in greater rate reductions than the Hybrid case due to the increased capacity benefits.

Figure 19: Long-term average rate impact for Hybrid and Hybrid + Storage



Similarly, the bill impacts for both non-participants and participants are also minimal.

Appendix B

Net energy billing capacity in the pipeline, by project size

November 2022

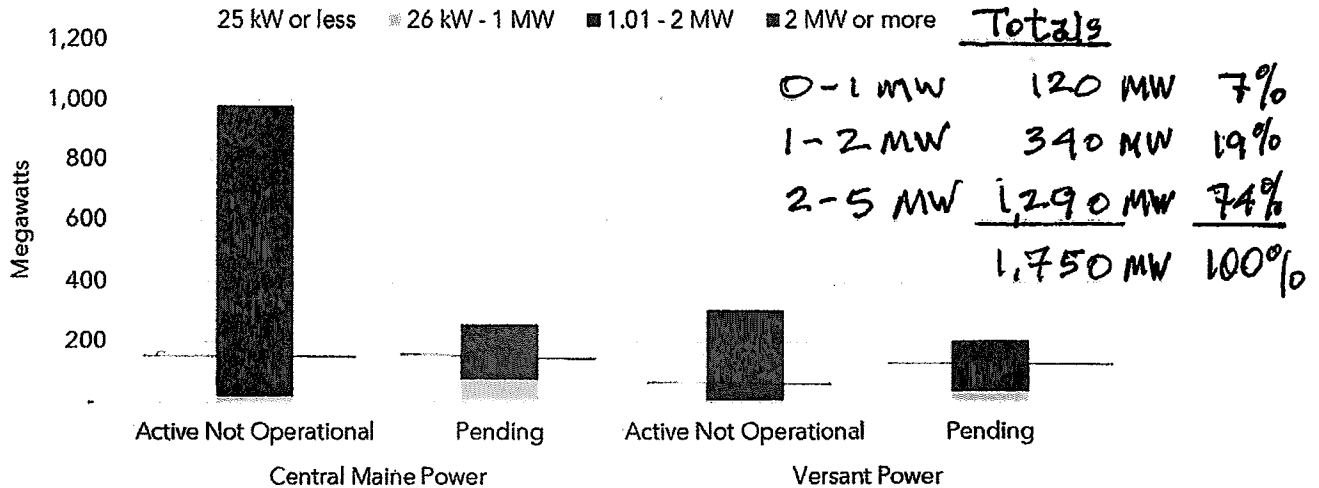
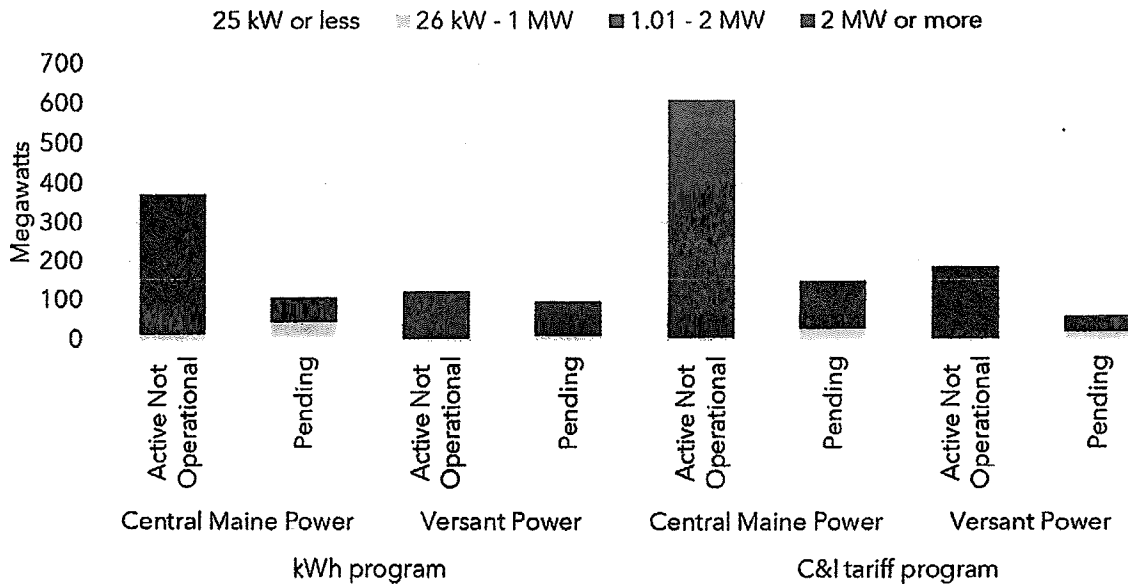


Figure 8

Net energy billing capacity in the pipeline, by project size, status, and program

November 2022



Based on the average offtaker capacity illustrated in Figure 5 and Figure 6, as well as the potential net energy billing capacity in the program pipeline illustrated in Figure 8, an estimated additional 82,000 –

Appendix C

Actual Numbers Instead of Scary Numbers

The Office of the Public Advocate (OPA) keeps talking about an NEB ratepayer impact of \$220 million per year. This is a fiction. It is a scary, hypothetical, worst-imaginable-case scenario. For a more accurate context, consider the actual rate case filed by Central Maine Power (CMP) with the Public Utilities Commission (PUC). Ironically this is the same rate case the OPA is working to negotiate down! In this rate case, CMP is seeking about a \$50 million rate increase, spread over three year, allocated to NEB costs. This is significant, and is cause for distributed generation program reform, but it is not a crisis.

According to CMP, the company is seeking a total rate increase of \$ 94.9 million over 3 years, for both (i) investment in a stronger, smarter, more resilient grid (an ongoing CMP responsibility), and (ii) to support Maine energy policy objectives (including NEB). Assuming half of this amount is allocated to each purpose, this means \$ 47.5 million for distributed generation and other clean energy incentives (including NEB). The average CMP residential bill is \$ 153.84/month. Per CMP, this would result in an increase of \$ 4.90 (only 3.2 % of the current total bill) over three years. If the energy part of the bill decreases even one cent it would wipe out the impact of this clean energy cost.

Math Proof

Typical residential customer energy usage: 550 kWh/month

Standard Offer Energy Rate: \$ 0.176310/kWh

Delivery Charge: \$ 13.66 (fixed for first 50 kWh) + \$ 0.086420/kWh (variable charge for remaining kWh used)

Current bill charge: $\$ 13.66 + (\$ 0.086420 \times 500 \text{ kWh}) + (\$ 0.176310 \times 550 \text{ kWh}) = \$ 153.84$

CMP Rate Filing Data (per CMP Customer Notification, March 2023)*

<u>Year</u>	<u>Revenue Increase</u>	<u>CMP Estimate Ratepayer Impact</u>
2023	\$ 43.5 million	\$ 4.65 per month
2024	\$ 27.7 million	\$ 2.78 per month
2025	\$23.7 million	\$ 2.37 per month

* Note this is the total CMP request for both regular, routine on-going investment and clean energy purposes.

Customer Bill Impact Related to NEB + Other State Clean Energy Policies*

<u>Year</u>	<u>Clean Energy Portion (1/2 of the above)</u>	<u>% of Baseline Total Bill</u>
2023	\$ 2.32 per month	1.51 %
2024	\$ 1.39 per month	0.90 %
2025	<u>\$ 1.19 per month</u>	<u>0.77 %</u>
Total	\$ 4.90 per month	3.18 %

\$ 4.90 per month (the cumulative total over three years is 0.9 cents/kWh)

* Note this is one-half the total rate increase for both regular, routine on-going investment and clean energy purposes.

This is an incomplete story because it does not include offsetting benefits and additional projects that may come on line. Nevertheless, it shows the limited impact of State energy policy initiatives in the current CMP rate filing. The impact of these policies on the typical residential customer is less than one cent per kWh. A decrease in the energy charge of one cent or more (considered probable), or any other charge category, would compensate for this negative impact in full. A copy of the CMP customer notice on which the foregoing analysis is based is attached.



CENTRAL MAINE POWER

An AVANGRID Company

1) essential grid improvements.

March 2023

Dear Customer:

In August 2022, we submitted a request for a three-year rate plan to the Maine Public Utilities Commission ("Commission") in accordance with Maine law 35-A M.R.S. §§ 301, 307 & 3195 and Chapter 120 of the Commission's Rules. The request seeks increases in distribution revenues to support the Company's investment in a stronger, smarter, more resilient grid for Maine, while also supporting important energy policy objectives of the State of Maine. The last change in distribution revenues was approved by the Commission in 2020 and reflected in rates on March 1, 2020. Consideration of our request continues before the Commission.

As of today, the Company's proposed three-year rate plan, if approved, would increase the distribution component of the Company's revenues by \$43.5 million effective in summer 2023, \$27.7 million effective in summer 2024, and \$23.7 million effective in summer 2025. As proposed, this translates to a total monthly delivery bill increase of \$4.65 in 2023, an increase of \$2.78 in 2024, and an increase of \$2.37 in 2025 for the average residential customer using 550 kWh of electricity per month.

As part of our proposed rate plan, the Company also seeks approval for funding up to a cap for five additional programs to support (1) access to broadband in underserved communities, (2) installation of electric vehicle chargers, (3) development of two energy storage pilot projects, (4) implementation of active network management technology, and (5) the replacement of deficient utility poles owned by Consolidated Communications, Inc. If approved and funded to the cap, these additional programs would further increase the Company's revenues by \$0.7 million effective in summer 2025, \$8.3 million effective in summer 2026, \$8.4 million effective in summer 2027, \$7.8 million effective in summer 2028, and \$3.4 million effective in summer 2029. This translates to a total monthly delivery bill increase of \$0.07 in 2025, an increase of \$0.74 in 2026, an increase of \$0.76 in 2027, an increase of \$0.70 in 2028, and an increase of \$0.30 in 2029 for an average residential customer using 550 kWh of electricity per month.

Parties to the proceeding, including the Maine Office of Public Advocate, have opposed certain aspects of our proposed rate plan and additional program funding request. The procedural schedule for the proceeding calls for the Commission to hold evidentiary hearings in May and then decide our request in July 2023. Any eventual revenue increases approved by the Commission will be shared across customer classes and among customers in each class by an allocation method to be determined as a part of this proceeding.

This notice is provided in accordance with Chapter 110 § 8.A.1(c) of the Public Utility Commission's Rules of Practice and Procedure. You may participate in this proceeding in any of the following three ways:

1. If you wish to be notified when a filing is made in the case, you may add your name to the case notification list using the Commission's case management system (CMS). For information on how to register and use the Commission's CMS, please access this information at the following web address: <http://www.maine.gov/mpuc/online/index.shtml>.
2. You may petition to intervene. If your petition to intervene is granted, you will be a party with the right to participate formally in the hearings and in negotiations. Your petition must be submitted through the Commission's CMS and must state the name and docket number of this proceeding, and the manner in which you are affected by this proceeding. Your petition must also include a short and plain statement of the nature and extent of the participation you seek, and a statement of the nature of the evidence or argument you intend to submit. You may also submit your petition in writing via U.S. mail to the Commission's Administrative Director, Public Utilities Commission, 18 State House Station, Augusta, ME 04330-0018. Your petition should be filed with the Commission by March 31, 2023.
3. You may appear as a public witness at a hearing. The Commission has scheduled three public witness hearings to be held as follows:

April 4, 2023 – 6:00 p.m. (In-person) Ramada Inn 490 Pleasant Street Lewiston, Maine	April 6, 2023 – 4:00 p.m. (Virtual via Microsoft Teams Videoconferencing and In-person) Maine Public Utilities Commission Simpson Hearing room 26 Katherine Drive Hallowell, Maine	April 11, 2023 – 6:00 p.m. (In-person) Ramada Inn Conference Center 352 North Street Saco, Maine
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If you would like more information about the proceeding or the public witness hearings you may contact the Administrative Director of the Commission (207.287.3831), the Maine Office of Public Advocate (207.624.3687) or Regulatory Services, Central Maine Power (207.245.0142).

Sincerely,
Peter Cohen
Vice President, Regulatory