

MAINE PUBLIC UTILITIES COMMISSION

**Report on Renewable Distributed
Generation Solicitation**

pursuant to

**An Act To Promote Solar Energy Projects and
Distributed Generation Resources in Maine**

(P.L. 2019, Chapter 478)

**Presented to the
Joint Standing Committee on
Energy, Utilities and Technology
November 10, 2020**

I. EXECUTIVE SUMMARY

On February 28, 2020, the Maine Public Utilities Commission (MPUC) issued its Procurement Announcement for the first block (Block 1) of distributed renewable generation projects pursuant to the “Act To Promote Solar Energy Projects and Distributed Generation Resources in Maine” ([P.L. 2019, Chapter 478 \(Act\)](#)). As directed by the Act, this solicitation was to be the first in a series of five solicitations that would collectively obtain a total of 375 megawatts (MW) from renewable generation projects, each of less than 5 MW in size.

On August 28, 2020, the Commission issued its Order (Attachment A to this report) finding that this Block 1 procurement was not competitive pursuant to the standards set forth in the Act, Chapter 312 of the Commission’s rules, and the Commission’s Procurement Announcement.¹ The Commission based its decision on:

- The significant level of attrition in the number of bidders and projects that occurred during each stage of the procurement;
- The observed bid prices and bidding behavior, as well as the ultimate clearing price of greater than 19 cents per kWh, which indicated that the Block 1 bidding did not reflect cost-based bids; and
- Accepting excessively high prices to set the clearing price for Block 1 would drive the results of the remaining four rounds of DG procurement and result in significant costs to ratepayers.

The Act requires that, if no bids are accepted under the first solicitation, the Commission will conduct a new competitive procurement within nine months as well as study the reasons for the inability of the procurement to secure the target amount and submit a report of its findings and any recommended legislation to the Legislature. The Commission hereby provides the following recommendations for the Legislature to consider for improving the competitiveness of future solicitations:

- Recommendation #1 – Consider modifying the uniform clearing auction structure of the procurement to an alternative structure that promotes bids reflective of actual project costs and does not tie procurement pricing to that of preceding blocks;
- Recommendation #2 – Consider replacing the requirement for the project sponsor to have obtained all federal, state, and local approvals and permits with a requirement that the project sponsor has submitted completed applications for all such approvals;
- Recommendation #3 – Consider making explicit that projects that need ISO-NE I.3.9 approval prior to interconnecting may bid if they have an otherwise unconditional executed interconnection agreement.

¹ *Competitive Procurement for the Output of Distributed Generation (P.L. 2019, ch. 478, Part B)*, Docket No. 2020-00014, [Order \(Aug. 28, 2020\)](#) (DG Order).

II. DESCRIPTION AND REQUIREMENTS OF THE ACT

A. Procurement Structure of the Act

During its 2019 session, the Legislature enacted an Act To Promote Solar Energy Projects and Distributed Generation Resources in Maine, [P.L. 2019, Chapter 478 \(Act\)](#).² Part B of the Act, now codified at 35-A M.R.S. §§ 3481-3488, created a distributed generation procurement process that requires the Commission to solicit and procure targeted amounts of energy, capacity and renewable energy credits (RECs) from developers of renewable distributed generation (DG) facilities of less than 5 MWs³. These procurements are to be accomplished through award by the Commission of 20-year contracts between the selected projects and the appropriate investor-owned electric transmission and distribution utility (T&D utility), either Central Maine Power (CMP) or Versant Power (Versant).

The Act established two DG program categories:

- 1) “Shared DG” with a total target amount of 250 MW; and
- 2) “Commercial or Institutional (C/I) DG” with a total target amount of 125 MW.

Under these programs, either the “subscribers” (customers with a proportional interest in a Shared DG project) or a commercial or industrial customer (C/I) participating in a C/I DG project, receive credits on their electric bill equal to the contract rate multiplied by the subscriber’s share of the project output (for Shared DG projects) or the entire project’s output (for C/I DG projects). The net benefits ultimately retained by a customer will depend on the specifics of the customer’s contractual arrangement with a project developer.⁴

The total target amounts in each category are to be procured over five separate procurement rounds with each procurement block’s targeted amount to be one-fifth of the aggregate total targeted amount to be procured.⁵

The Act provides that the contract rate to be paid to all projects selected in the first procurement round (Block 1) will be equal to the highest accepted bid price (i.e., the “uniform clearing price”) in each of the two program categories. The price to be paid for projects in each subsequent procurement round (Rounds 2 – 5) will be equal to 97% of the applicable price for the immediately prior block.

² As required by the Act, the Commission adopted rules (Chapter 312) to implement the DG programs, including the procurement processes established by the Act. *Maine Public Utilities Commission, Adoption of Distributed Generation Procurement Rules – [Chapter 312](#)*, Docket No. 2019-00219, [Order Adopting Rule and Statement of Factual and Policy Basis](#) (Dec. 11, 2019).

³ The Act also set forth a revised Net Energy Billing (NEB) program that is the subject of a separate Commission report to the Legislature. See “Report on Net Energy Billing pursuant to An Act To Promote Solar Energy Projects and Distributed Generation Resources in Maine (P.L. 2019, Chapter 478)” dated November 9, 2020.

⁴ Other than certain required disclosures, the contractual arrangements between customers and project developers are not regulated by the Commission.

⁵ The Commission is allowed by the Act to accept bids in excess of the first block target if it was determined to be in the public interest.

The Act also requires the Commission to establish standards to ensure that each round of the procurement process had a sufficient number of unique bidders and a quantity of qualified bids to be determined competitive.

B. Timing Requirements of the Act

The Act required bidders to submit bid prices for the initial Block 1 procurement during a 30-day bid acceptance period beginning no later than July 1, 2020, followed by a Commission decision issued no later than 30 days after the end of the bid acceptance period.

The Act also required the Commission to immediately open the procurement for Block 2 after the conclusion of Block 1, unless no bids were accepted in Block 1. In the event no bids were accepted for Block 1, the Act provides that the Commission will conduct a new initial competitive procurement within nine months, as well as study and report the reasons for the procurement’s failure to secure the target amount and any recommended legislation. This report is submitted in response to this requirement.

C. Bidder and Project Qualifications of the Act

The Act requires that in order to be qualified to bid, a project must have:

TABLE 1

1. Demonstration of site control;
2. A fully executed interconnection service agreement with a T&D utility;
3. Demonstration that all required federal, state and local approvals and non-ministerial permits for the project have been obtained;
4. The capacity to make a financial assurance deposit at the time a contract is signed;
5. For a C/I DG resources procurement, if a participating commercial or institutional customer is not the party making the bid, an agreement from a customer that would receive bill credits pursuant to the provisions of the Act;
6. For Shared DG resources procurement, demonstration of experience fulfilling the obligation to subscribers of shared distributed generation resources; ⁶
7. For Shared DG resources, minimum subscription requirements: <ul style="list-style-type: none"> a) the subscriptions must be sized to represent at least one kilowatt of the resource's generating capacity; b) at least 50%⁷ of the total nameplate capacity of a Shared DG resource must be subscribed by subscriptions of 25 kilowatts or less; and c) at least 10% of the total nameplate capacity of a Shared DG resource must be subscribed by households with low or moderate income.

⁶ The Act also requires that for Shared DG projects, the Commission establish consumer protection standards to protect subscribers from fraud and other unfair and deceptive business practices and that potential subscribers be provided disclosures relating to the requirements and risks of participation in the program.

⁷ Or 20% if subscriptions from a municipality or units of municipal government account for more than 30% of the capacity, unless subscriptions from a municipality or units of municipal government account for more than 50% of the total capacity of a Shared DG project.

D. Cost and Benefits Recovery Mechanism of the Act

The Act contains a cost allocation mechanism, which requires CMP and Versant to implement a transparent mechanism to track and recover or distribute costs and benefits associated with participation in the DG programs. The utilities must submit these costs and benefits to the Commission on an annual basis to be recovered from ratepayers. The costs and benefits to be tracked and recovered include the utilities' incremental costs for participating in the DG program; all payments or bill credits from customers, subscribers and project developers; all revenue from sale of the output of DG resources procured.

III. **MPUC PROCUREMENT PROCESS**

On December 11, 2019, the Commission issued its Order adopting the new rule (Chapter 312) governing the DG programs established by the Act, including the provisions related to the procurement processes. The Commission engaged Enel X North America, Inc. (Enel X) to assist with the administration of the procurement. On February 28, 2020, the Commission issued the Procurement Announcement for the initial Block 1 procurement, seeking 50 MW under the Shared DG program and 25 MW under the C/I DG program as required by the Act. From March 2020 through the end of June 2020, the Commission and Enel X conducted the procurement, answering numerous bidder questions and evaluating the qualifications of the bidders and projects. On July 1, 2020, the bid submission period commenced for qualified projects and concluded on July 30, 2020 as required by the Act. On August 28, 2020, the Commission issued its Order on the results of Block 1.

IV. **COMMISSION'S FINDINGS ON THE INITIAL BLOCK 1 PROCUREMENT**

The Commission's August 28, 2020 Order (Attachment A to this report) concluded that this initial Block 1 procurement was not competitive pursuant to the standards set forth in the Act, Chapter 312 of the Commission's rules, and the Commission's Procurement Announcement. Consequently, the Commission did not accept bids from this initial Block 1 procurement.⁸ The basis for the determination are summarized below:

A. Attrition in Bidders and Projects

From the initial qualification phase of the solicitation through to the submission of bid offer rates, there was significant attrition in the number of bidders and projects. The total number of bidders that submitted bids in the Shared DG and C/I DG sectors combined reflected a reduction of nearly 80% as compared to the number that submitted bidder applications. In addition, the bids that were submitted represented a 67% reduction from the number of initial project applications.

⁸ *Competitive Procurement for the Output of Distributed Generation (P.L. 2019, ch. 478, Part B)*, Docket No. 2020-00014, [Order \(Aug. 28, 2020\)](#) (DG Order).

B. Bidding Behavior and Prices Indicated Bids Were Not Cost Based

The observed bid prices in Block 1 indicated non-competitive bidding behavior. Most notably, the Commission observed that several of the very same projects that have executed NEB Agreements in place with CMP submitted bids in Block 1 at price levels well in excess of the compensation the project would receive in the NEB. As noted in the DG Procurement Order, the Block 1 Procurement would have resulted in prices in excess of 19 cents per kilowatt-hour for both the C/I and Shared DG programs. This clearing price is significantly above the current range of compensation for NEB projects that are in the range of 12.0 – 14.5 cents per kilowatt-hour. This strongly indicates that the Block 1 bidding did not result in cost-based prices and that there was non-competitive behavior by the participating bidders.

In addition, the Commission notes that significant numbers of solar and other renewable projects in Maine have recently been awarded contracts pursuant to other legislatively-established programs at even significantly lower prices than the NEB program. Most recently, in September of this year, the Commission completed a procurement process for energy from Maine Class IA RPS-eligible projects in accordance with 35-A M.R.S. §§ 3210-G. The projects that received awards in this process included 14 solar facilities to be developed in Maine ranging in size from 16 MW to 100 MW. The accepted first year prices for energy from the new Class IA projects that received awards range from 2.975 cents per kWh to 4.0 cents per kWh, reflecting a weighted average price of just under 3.5 cents per kWh. In addition, the Commission previously approved a long-term contract pursuant to Title 35-A, M.R.S. §3210-C with Dirigo Solar to procure solar energy from a set of projects ranging from 4.99 MW to 20 MW for a price of 3.4 cents per kilowatt-hour, escalated at 2.5% annually.⁹ While these projects are not directly comparable due to the DG program due to size and programmatic requirements, it is worth noting that the prices that would have resulted from the DG procurement, which were in excess of 19 cents per kWh, would have been more than five times greater than the prices for these similar solar Class IA projects.

C. Effect of Block 1 Prices on Subsequent Blocks

As described earlier, the pricing for Blocks 2 through 5 will be priced at 97% of each preceding Block. Accordingly, under this pricing structure, any increase in prices that results from non-competitive behavior in Block 1 will flow through all subsequent rounds of the procurement. In addition, bidders that chose not to or were unable to participate in the first procurement round would have certainty that their projects would receive a 20-year contract at prices that would be only slightly below the Block 1 clearing prices. In the case of the clearing prices that would have been established had the Block 1 results been approved, bidders receiving contracts in later rounds would be guaranteed to receive prices that exceeded an 18 cents per kWh. Given the clearing prices that would be set for Block 1 if the results of this non-competitive procurement had been accepted, the Commission estimated that, at the conclusion of Procurement Block 5, the net cost of the DG program to Maine ratepayers would be in excess of \$70 million per year.

⁹ *Maine Public Utilities Commission, Long-term Contracting*, Docket No. 2015-00026, [Order Approving Agreement](#) (Dec. 18, 2017).

V. RECOMMENDED CONSIDERATIONS FOR MODIFICATIONS TO THE PROCUREMENT PROCESS

A. Uniform Clearing Price Structure

As noted above, the Act requires that the price paid to all selected projects be set equal to the highest accepted bid price, referred to as the uniform clearing price. Consistent with well-established economic theory, a bid price should reflect the expected costs of the project. It is the Commission's understanding that the uniform clearing price auction structure adopted by the Legislature was based on an expectation that the structure would result in projects submitting bid prices that were reflective of their actual costs. However, as noted above, this premise was unsupported by the observed prices in the Block 1 auction. In addition, the ratepayer cost consequences of uncompetitive pricing accepted in Block 1 would continue to flow through the subsequent blocks of procurements.

Recommendation #1 -- Given that the uniform clearing price structure of the DG procurement appears not to have produced cost-based pricing as desired, the Legislature may wish to consider other structures and approaches. These include:

- Structuring the procurement as a "sealed bid, pay as bid" process in which each bidder would submit its bid, bids would be evaluated based on the submitted bids, and each project that received an award would be compensated based on its bid price. (This is similar to the structure used for the Class IA RPS resource procurement process described above as well as for the procurement of Standard Offer Service in Maine.)
- If a uniform price for a procurement block is desired, structuring the auction as a dynamic and transparent "reverse" auction with a "descending clock" feature¹⁰;
- Removing any automatic price linkages between, or pre-established prices for, procurement rounds so that (1) bidders are required to vigorously compete in each round and (2) any disincentive for bidders to behave competitively are minimized.

B. Barriers to Entry

Challenges related to meeting the minimum qualification requirements outlined in Table 1 above and as set forth Section 3484(4) of the Act likely contributed to the significant attrition in the number of bidders and projects. Meeting these minimum requirements presented barriers to entry for prospective projects. Although the Commission recognizes the importance of these requirements to ensure that projects are feasible, properly permitted and likely to proceed to commercial operation, certain modifications to the statutory requirements may serve to lower the barriers to entry without sacrificing the policy objective of ensuring that bidding projects are

¹⁰ In a dynamic reverse auction with a descending clock feature, the auction price is progressively lowered until the target quantity for the auction is met. Such structures are used in wholesale electricity markets, procurements in other states, and by the FCC. (See https://www.iso-ne.com/static-assets/documents/2015/11/20151202_fca_clearing.pdf; <http://blogs.reuters.com/environment/2010/12/16/california-approves-reverse-auction-renewable-energy-market/>; and <https://www.cnet.com/news/fcc-proposes-rules-for-20-billion-rural-broadband-fund-auction/>).

viable. Specifically, the Legislature may want to consider modifications to two of the statutory requirements:

Recommendation #2 -- The Legislature may wish to consider easing the requirement that all federal, state and local approvals and non-ministerial permits be *obtained* prior to bidding and replace it with a requirement that the project developer has *submitted complete applications* for all federal, state and local approvals. The preparation and submission of applications for siting and environmental permits involves a significant investment of time and expense by a developer and its contractors. It is unlikely that a developer would make this investment in a project unless that project were reasonably expected to be viable. This approach also keeps the qualification process within the control of the developers and not subject to processes (and delays due to the pandemic) that are outside of developer control.

Recommendation #3 -- The Legislature may wish to consider further clarifications to the interconnection requirements. Currently, the statute requires a project to have a “fully executed interconnection service agreement” as well as all federal, state and local approvals. In its review of project qualification applications, the Commission required demonstration that a project had a fully-executed, non-conditional, interconnection service agreement as well as section I.3.9 approval from the ISO-NE Reliability Committee, which meets monthly. As noted in the Commission’s August 28th Order, completing the ISO-NE I.3.9 process proved to be a barrier for several projects. The Legislature may want to consider modifications to the interconnection requirement to clarify that a project must have a fully executed interconnection service agreement for which all conditions and system impact studies have been completed, except for those conditions and studies associated with any required I.3.9 approval.