



December 17, 2020

Matthew H. Nelson, Chair
Massachusetts Department of Public Utilities
One South Station, 5th Floor Boston, MA 02110

Re: Inquiry by the Department of Public Utilities on its own Motion into the Assignment and Recovery of Costs for the Interconnection of Distributed Generation, D.P.U. 20-75

Dear Chair Nelson,

We applaud DPU for opening the 20-75 proceeding and appreciate the opportunity to submit comments on the DPU's cost allocation straw proposal. The current cost allocation process and rules for interconnected distributed generation resources are sufficient barriers for the development of new distributed generation that it will make it impossible for the Commonwealth to meet its obligations under the Global Warming Solutions Act and the state's solar and storage targets. Without reform, this challenge will become an even greater barrier as more distributed resources are planned, the existing distribution and transmission infrastructure ages, additional climate policies are adopted and new technologies emerge. The straw proposal would begin to address these barriers and we support many of the elements of the proposal.

There are series of issues that need to be addressed in developing an equitable, forward-thinking and robust interconnection policy, including how grid upgrade costs are allocated between distributed resources and ratepayers, when distributed resources need to pay for their costs, and what range of capacity and technologies should be included in required grid update costs. The primary barrier facing the expansion of distributed resources is the current cost allocation among proposed distributed resources that share specific upgrade costs.

As our example below describes in detail, our experience as part of National Grid's Gardner area group study illustrates the impossibility of developing a new solar facility under the current cost allocation rules. Our interconnection application was put into a group study, initially along with nearly 100 MW of other projects. Very rough ballpark estimates of per MW shared interconnection costs were anticipated to make these projects financially feasible. As the study progressed, projects dropped out for a variety of reasons, increasing the per MW cost for the remaining projects.

At each step, as costs and timetables for interconnection became firmer, more projects dropped out. That, in turn, raised the costs for the remaining projects, triggering even more projects to drop out. Ultimately, our 2 MW project was faced with at least \$9.2 million per MW in distribution and transmission upgrades and transmission upgrade carrying costs over twenty years. That cost is not financially feasible for us or others in the study. What was initially over 100 MW of potential new solar capacity is now zero.

Our project hit all the stated goals of Massachusetts energy policy: serving low-income communities; developing brownfield sites; minimizing any adverse impacts on neighbors, viewsheds and communities; utilizing storage to maximize benefits to the overall electric system; and reducing climate impacts. It cannot move forward if we are required to pay an unfair and disproportionate share of interconnection costs.

This letter describes our experience that illustrates the barrier created by the current interconnection cost allocation policies.

Background:

BlueHub Capital (formally Boston Community Capital) is a thirty five year old community development finance institution dedicated to building healthy communities where low-income people live and work. Since 2008, we have been working through our affiliate, BlueHub Energy, to develop innovative financing and business models to expand access to solar in low-income communities. We have developed and operate approximately 7 MW of solar capacity across 80 Massachusetts projects. These projects primarily serve affordable, multifamily housing developments. We also have projects that benefit non-profit organizations and municipal facilities, such as the Greater Boston Food Bank. Our experience in developing solar for low-income beneficiaries means we are uniquely positioned to understand the challenges of serving this market segment and the ways in which policy design can enable or hinder a more equitable distribution of solar's direct benefits across all classes of ratepayers.

While starting out with rooftop solar projects, we learned over time that we could more effectively serve the communities we hope to serve utilizing larger scale ground mount systems. Being sensitive to community concerns both our existing projects and those we hope to develop have been selected to be hidden from view both from public roads and from neighboring homes. The one exception has been on an industrial zoned remediated brownfield.

Model Project

Our Kinzer Drive Project, which we have been trying to develop in Gardner since 2016, is on a long-vacant, industrial-zoned brownfield site and will be completely hidden from view from any road and any neighbors.

We submitted our interconnection application for the project in December 2017, having first spent significant time and money assuring that the contamination on the site would not be an insurmountable barrier to development. We have had site control and all permits in place for this brownfield site since 2018 and, with the exception of the interconnection approval, this project has been ready for construction since January 2018. The project was one of the first to get caught up in area and group studies that have delayed development in the central and western Massachusetts for almost three years now.

Based on the Detailed System Impact Study for the project that were finally delivered in October 2020, and subsequent discussions with National Grid representatives, our understanding is that we would be expected to pay a proportionate share of \$43 million in transmission upgrades and \$29 million in distribution upgrades. For our 2 MWac (4.02MWdc) solar plus storage project, that is approximately \$5.8 million, or \$2.9 million per MW. While the Study sets the distribution costs at +/- 10% of the estimate in the Study, there is no similar cap on the transmission cost estimate. In addition, we would be responsible for annual transmission carrying costs of 5.21% of our share of the transmission upgrade costs, or about \$3.4 million over twenty years. This adds additional costs of \$1.7 million per MW over the twenty year project life.

Current policy requires us to pay the initial \$5.8 million cost within the next year. We would need to finance that cost until the project can come on line. This project will need to wait to interconnect until at least April 2027 when the A1 B2 transmission line is completed. Financing these interconnection costs would require an additional \$1.5 million. Interconnection costs will eat up a very substantial portion of the total revenues for this project even before paying for the costs of building and operating the system.

These cost estimates for our project, which were illustrative for the others in the Study, assumed that all other projects in the study area move forward. If any projects dropped out, the costs for the remaining projects go up. With the very high interconnection costs, the requirement to pay those costs years in advance of being allowed to interconnect, the uncertainty of what that ultimate cost will be, and at least a six and a half year delay until we can interconnect, we were not able to move ahead with the interconnection agreement. All of the other projects still remaining in the study area made the same decision and declined to move forward to interconnection.

The only hope to preserve this good project and our place in the interconnection queue was to take up National Grid on its offer to roll any project that wants to participate into a subsequent study with more proposed capacity, which might reduce costs, and to pay the many thousands of dollars in restudy costs hoping the per MW costs come in far lower. However, this new study is likely to trigger exactly the same dynamic with initial per MW costs barely feasible at the start, causing marginal projects to drop, raising costs for remaining projects, and further triggering more attrition.

What we are really hoping is that this proceeding in Docket 20-75 will come up with a far more fair and sensible cost allocation formula which doesn't have distributed generation developers paying the entire cost of upgrades far in advance of being able to utilize the interconnection.

Comments on DPU Straw Proposal

- 1) It is critical that the current docket analysis be undertaken with a clear focus on the Commonwealth's clean energy and climate policy goals and that resulting policy support those goals. It is equally critical that long term utility system planning and upgrade efforts have a similar focus on enabling the implementation of those policies and goals.
- 2) When examining the issues impacting ratepayers, it is critical that benefits as well as costs of distributed solar and storage be considered in all such analysis. Numerous "value of solar" studies have been done that provide good estimates on such benefits, including but not limited to:

- a. Reducing and stabilizing long term wholesale electricity costs
 - b. Balancing loads on the utility system
 - c. Creating jobs
 - d. Encouraging fast growing clean technology businesses of the future
 - e. Increase our energy security and reliability
 - f. Reducing pollution from incumbent fuel sources
- 3) Replacing and upgrading old transformers, lines and other equipment in order to connect distributed generation, while certainly benefitting the distribution projects being interconnected, also benefits all other customers utilizing the impacted equipment and provides benefit to all ratepayers who would ultimately have to pay the cost of maintaining and eventually replacing that equipment even in the absence of distributed generation.
 - 4) The straw proposal of paying for capital investment projects through a reconciling charge paid for by all ratepayers and then reimbursed by projects paying proportionally for the capacity they utilize, is far more sensible than the current cost allocation mechanism. We support the concept.
 - 5) Recognizing that all DG projects benefit from the distribution system, a minimum interconnection fee also seems like a sensible proposal.
 - 6) Maximum interconnection fees also make a lot of sense recognizing that there are other critical factors that go into determining good sites for a distributed energy project besides considering just the already existing interconnection capacity. Such factors include but are not limited to:
 - a. Land use policies and the views of local regulators in cities and towns
 - b. Real estate values and competing land uses
 - c. Impact of proposed projects on neighbors and viewsheds
 - d. Local environmental and economic impacts and benefits
 - 7) If interconnection involves long lead times, the bulk of the payment for interconnection costs should not be required until the system is ready to accept it for interconnection.
 - 8) We want request that as with all dockets, that special consideration will be given to issues in this proceeding that may impact low-income communities.
 - 9) We hope this proceeding and the resulting decisions can be expedited so that more common sense can be applied to allocating costs than the current regulations allow for and that projects caught up by extremely long interconnection processes and costs can be regulated by more sensible and fair procedures.

Thank you for your consideration of this response to your request for comments.



DeWitt Jones
BlueHub Energy
djones@bluehubcapital.org
617-427-3580



Fred Unger
Heartwood Group, Inc.
unger@hrtwd.com
508-951-7419