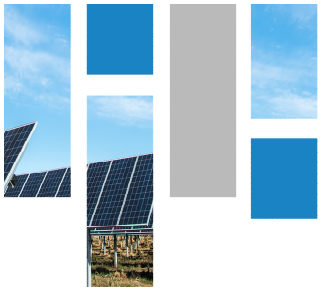
DIMENSION
RENEWABLE ENERGY



September 16th, 2019

Grace Strom Power, Chair
Energy Master Plan Committee
44 S. Clinton Avenue
Trenton, NJ 08625

Chair Power:

Thank you and the Committee for your work on the Energy Master Plan and for the opportunity to comment on its proposals. I'm providing the following comments on behalf of Dimension Renewable Energy. These comments follow the outline of my oral remarks made before the Committee on August 8th in Newark but provide greater detail on each of the points I made.

Dimension was founded in 2018 by an experienced team of energy industry executives. Together, the team has originated, developed, constructed and financed over a gigawatt of renewable energy projects. Dimension is completely focused on developing community solar and energy storage projects. As a result, we are well versed in community solar, value-based compensation for solar, and non-wires alternatives for distribution projects, transmission projects and the replacement of fossil peaker plants.

Given our company's experience and focus, there are several items in the Energy Master Plan that are of particular interest to us. We focus our comments on the first year of the community solar pilot program as a critical opportunity to test tools for meeting the Energy Master Plan's goals. We also provide suggestions on the related topics of integrated distribution planning and how it can support the development of value-based compensation for solar and the identification of non-wires alternatives that can be accomplished with distributed energy resources (DERs).

Ensuring viable projects in the community solar pilot in order to yield insights by 2021

We believe that the community solar pilot program provides the state an opportunity to gain needed experience on several objectives outlined in the Energy Master Plan, particularly related to providing clean energy access to low income and other disadvantaged populations in the state. Indeed, the program sets the most ambitious low-income goals of any community solar program in the country.

In order for the pilot program to yield insights on how the market can meet its goals, and be scaled to meet the state's broader ambitions in the Energy Master plan, it is critical that projects selected by the Board are those that are likely to succeed in reaching commercial operation. After projects are selected and move along the timelines outlined in the program rules, the Board must also act quickly to replace non-

viable projects with projects that have a clear path to interconnection and permitting. Indeed, a typical solar project development cycle of up to two years means that the first year of the pilot program is likely to be the only one that provides operating projects in time to evaluate the pilot program in 2021. However, having a set of projects to evaluate in 2021 will require the selection of viable projects in this first year of the program.

Solar projects must undergo two parallel processes to go from conception to operation: permitting and interconnection. Both of these processes present risks that can result in even well-planned projects becoming unviable.

The permitting of community solar projects will operate along two separate permitting tracks. Roof mounted projects will only require building permits ("ministerial permits"). Ground mounted projects, by contrast, require "non-ministerial" permits that require much more significant review from local, state and federal entities, require public input, and may require special studies for the presence of wetlands, endangered species, et cetera. As these reviews occur it may be discovered that there are sensitive habitats or other issues which require mitigations or modifications to a project that make it inviable.

The land or roof on which a project is sited must be close to higher voltage distribution equipment capable of interconnecting new generation. New Jersey's electric distribution companies (EDCs) have published capacity maps that provide an indication of which circuits can more easily absorb new generation. However, detailed studies by EDC grid engineers are required to fully understand the real costs and capability of interconnection. Although capacity maps are helpful, they are not a particularly strong indicator of interconnection costs. A 'green' circuit on an EDC map may have very limited ability to absorb new generation before an expensive upgrade is triggered. Conversely, a 'yellow' circuit may require transformer or other expensive equipment replace, and yet still be within a project's budget. Feasibility and system impact studies provide the real data that determine project viability.

In an effort to stand up the community solar pilot program quickly the BPU has, unlike other markets, allowed for projects to apply without having first acquired permits or interconnection agreements. This is understandable given the short timeline for establishing rules and opening the program. The BPU has worked to mitigate some of these risks by 1) requiring developers to meet with the Department of Environmental Protection to do a permit review; and 2) requiring developers to utilize the EDC-provided hosting capacity maps to gain a general sense of interconnection potential. However, as noted above, hosting capacity maps are general guides. Similarly, the DEP review ensures a developer's plan for acquiring permits is complete, but it does not assure that the permitting process won't identify issues which create costs that cannot be sustained by the project. BPU should take additional measures to ensure the projects it selects are likely to become operational.

In order to limit the possibility that the pilot program selects projects that are not de-risked on a permitting and interconnection basis, and therefore are more likely to fail, *the Board should use its discretion to select projects that demonstrate greater certainty on interconnection costs and are on track to secure permits. The Board should also scrutinize the projects that are selected by the program and subsequently seek extensions for the 6-month deadline to begin construction.* If, upon requesting an extension, a project cannot demonstrate it has secured permits and interconnection cost estimates, that project should be replaced

with projects qualified, but not selected, in the first application period. Ensuring the first year of the pilot program yields successful projects will help the state understand solar market approaches for addressing goals of the program and the Energy Master Plan, notably low income participation.

Distribution planning: transparency and facilitated stakeholder processes are key

Dimension Renewable Energy is encouraged to see the state embark on Integrated Distribution Planning. We have been engaged in similar efforts in New York and California and believe that New Jersey can learn much from these markets while replicating their efforts more quickly and innovating beyond what they have done. Done well, distribution system planning can provide greater transparency on distribution and transmission needs and thereby create new opportunities for DERs, better align the performance- and compensation- of DERs with system needs, and save all ratepayers money.

While we are encouraged that the utilities will file distribution resource plans within a year, there will need to be substantial opportunity for formal and informal stakeholder input concurrent with the development of these plans and following their filing. In California, the utilities were ordered, in Fall 2014, to file similar plans in the Summer of 2015. Four years later, those plans are still the subject of ongoing regulatory proceedings at the Commission[1]. Likewise, in New York, the utilities have filed biennial distribution system plans in 2016 and 2018[2], but those plans have been treated as high-level planning documents and action on related issues (such as value stack compensation) has been addressed in stand-alone proceedings which remain ongoing. Establishing integrated distribution resource planning requires intensive work with stakeholders and will not be achieved through utility application filings alone.

A key component of Integrated Distribution System Planning is transparency about utility investment needs and the drivers of those needs. Understandably, there is a disincentive for the utility to disclose information that can result in reductions in capital expenditures. However, in order for a net-metering successor to have legitimacy, or to be sure that DERs are able to compete for all potentially deferrable utility projects, transparency is key. For the purpose of transparency and for developing the necessary policies related to elements of the Integrated Distribution System Planning process, the state should rely on extensive stakeholder working groups in addition to formal rulemaking activity. GridWorks[3], a non-profit based in California, has built an expertise in facilitating these types of conversations and there are likely other such groups developing around the country that could lead stakeholder processes under the direction of the BPU.

Non-wires alternatives

California's non-wires alternative process[4] is emblematic of a transparent distribution planning process bringing forward cost effective non-wires solutions. As part of their annual distribution planning process, the distribution utilities now release a Grid Needs Assessment which outlines a broad and nearly

[1] California Public Utilities Commission, R.14-08-013: Order Instituting Rulemaking on Distribution Resources Planning
[2] New York Public Service Commission, 16-M-0411: In the Matter of Distribution System Implementation Plans
[3] www.gridworks.org
[4] Referred to in California as the Distribution Infrastructure Deferral Framework

comprehensive range of upgrade needs in specific locations across the distribution system[5]. The Grid Needs Assessment is accompanied by a Distribution Deferral Opportunity Report that identifies projects likely to be deferrable by distributed energy resources based on an approved methodology for determining deferrable projects. An independent engineer and an advisory group of experts, including distributed energy resource providers, review deferral opportunities. The projects are then put out to bid with the Commission reviewing and approving selected projects.
Relevant to the goals of accommodating DER growth, the utilities distribution plans also identify grid modernization needs and locations where DER growth are expected to be high and enhanced hosting capacity could support additional projects. At the root of all of these useful tools is transparency.

Value-based compensation

Transparency in distribution and transmission planning is at the root of changing evaluation of- and compensation for- distributed energy resources in New York and California. New York's Value of Distributed Energy Resources (VDER) tariff is emblematic. VDER continues to undergo evolution from its initial version, which was non-financeable and, in certain instances, did not reflect true costs or cost drivers in the utility system. Now VDER is increasingly reflective of utility costs and has become an attractive solar-plus-storage tariff. This success has been achieved through greater transparency on distribution and transmission system needs and costs, which has the effect of putting distributed energy resources on an equal footing with utility investment.

Increasing transparency is being provided to inform VDER as the state and stakeholders are currently examining the marginal cost studies utilities use to determine the amount, and cost, of incremental capacity investments. In New Jersey substantial transparency about costs and drivers, developed through stakeholder processes and Board rulemaking, will be needed for any value-based compensation to yield desired outcomes and be accepted by DER developers, owners and financiers. The benefit of such transparency is that it will yield an ideal market response and help move the state beyond the start-and-stop nature of incentive programs and net metering caps.

Allow for the community solar market to grow to meet demand

Using integrated distribution system planning to create value-based compensation has an indirect benefit of removing the need for statutory or regulatory limitations on program sizes. Indeed, in New York there is limited funding for incentives for different project types or characteristics (e.g., projects on landfills, initial community solar projects, etc.), but the underlying Value of Distributed Energy Resources (VDER) tariff is unlimited: only the ability to interconnect an economical project stands in the way of building more projects. In New Jersey one could see a similar structure, with a net-metering successor tariff providing compensation for providing value for energy, capacity, and avoided transmission and distribution investment, and pollution avoidance while the SREC successor program provides incentive to meet non-energy policy objectives, such as enhanced access to clean energy by all New Jersey residents and development of solar on already disturbed sites.

[5] See in particular, California PUC D.18-02-004 in R.14-08-013

The unlimited feature of value-based compensation is important as the market potential for community solar is substantial. Greentech Media Research, in a report released last year, found a 3 gigawatt market potential for community solar in New Jersey[6]. With some of the objectives outlined in the Energy Master Plan, such as a growing amount of dense transit-oriented housing, a California-style solar mandate in the building code, and beneficial electrification- the need for community solar will only grow.

Thank you for the opportunity to comment. Please do not hesitate to contact me at bsmithwood@dimension-energy.com or (978) 869-6845.

Sincerely,

Brandon Smithwood
Director of Policy
Dimension Renewable Energy

[6] Vote Solar and GTM Research, *The Vision For US Community Solar: A Roadmap for 2030*, https://votesolar.org/policy/policy-guides/shared-renewables-policy/csvisionstudy/