

February 8, 2021

Aida Camacho-Welch Secretary of the Board Board of Public Utilities 44 South Clinton Ave, 9th Floor P.O. 350 Trenton, NJ 08625-0350

RE: Petition of Atlantic City Electric Company for Approval of Amendments to its Tariff to Provide for an increase in Rates and Charges for Electric Service Pursuant to N.J.S.. 8:2-21 and 2-21.1, and for Other Appropriate (12/20/20) BPU Docket No. ER20120746

Dear Secretary Camacho-Welch:

Certification of Lyle Rawlings in support of motion to intervene:

1. I, Lyle Rawlings, am the President of the Mid-Atlantic Solar & Storage Industries Association (MSSIA), which I co-founded in 1997. In addition to serving as an officer of MSSIA, I am also an owner and the President of Advanced Solar Products, a solar energy development, design, construction, and operation company.

I am a licensed professional engineer, and am expert in solar design, solar+storage design, and the integration of solar power with the electric grid.

I represented the solar industry in the BPU's first working group on interconnection of solar power with the grid ca. 2001, and was appointed by Governor McGreevy to represent the solar industry on his Renewable Energy Task Force in 2003. I have participated in research on the topic of discovering optimal pathways for achieving high-penetration renewable energy, and have co-authored peer-reviewed and non-peer-reviewed journal articles on that topic.

2. MSSIA is a not for profit, membership trade association of more than sixty companies and entities engaged in the production, development, financing, installation and operation of solar photovoltaic electric power production in New Jersey, Pennsylvania and Delaware.

3. As the Board knows, MSSIA, by and through its member companies and its President, has been actively engaged as one of the key stakeholders in many dockets and petitions addressing State energy policy. For over 23 years MSSIA, in accordance with its core policy principles, has consistently advocated for solar growth at the lowest possible cost to ratepayers, while delivering the greatest possible public good.

3. MSSIA and its membership will be directly and significantly affected by the outcome of the above captioned Atlantic City Electric (ACE) petition for an increase in rates and charges for electric service which includes a "Solar Hosting Initiative."

5. The Solar Hosting Initiative calls for the investment of "up to \$10 million over two years to complete needed upgrades to enable additional solar facilities to be installed...and so align with the stated goal of the [Energy Master Plan] to foster [Distributed Energy Resources] deployment by alleviating closed circuits." ACE Petition, para 9, p 10.

6. This investment proposal is necessary because "solar power facilities have been installed throughout ACE's service territory in significant numbers. In some instances, a capacity limit has been reached on certain feeders and substation transformers due to the aggregate amount of installed solar facilities, and [ACE] has closed those facilities to additional solar installations until the infrastructure is upgraded." Ibid.

7. Specifically, ACE has identified 38 feeders and 18 substation transformers as having no ability to accept additional solar installations without facility upgrades." ACE Petition, para 8, p. 10.

8. As a result of the limitations mentioned in the ACE filing, and similar issues throughout its territory, there is a de facto moratorium on "additional solar installations" at many locations throughout the ACE territory, resulting in the inability of many solar projects to be constructed. In many other locations, restrictions in ACE's distribution system have resulted in significant reduction in size for many other solar projects, and significant cost for project-by-project upgrades to the ACE distribution system. Often a circuit or substation at first is allowed to host several solar projects with little or no upgrades, and then a single unlucky solar project must bear the cost of upgrades. This piece-meal approach to upgrading ACE's infrastructure is an inefficient and chaotic way to "make ready" the grid, as is necessary for compliance with the Clean Energy Act of 2018 and the EMP, as well as the Global Warming Response Act's requirement of and 80 percent reduction in greenhouse gas emissions by 2050. Compliance with these laws constitutes nothing less than a complete overhaul of the way the state generates, distributes, and uses electric energy. The ACE Solar Hosting Initiative is an important first step in recognizing and acting upon this statewide imperative.

9. The issues described above have already severely affected many MSSIA member businesses, and the harm is expected to accelerate. As MSSIA has calculated on several sunny Spring and Fall days, the statewide generation of solar power within New Jersey's borders can exceed 25% of the peak consumption of electric power in the state between 11:00 AM and 3:00 PM, and can reach 30% in the middle of the day. The BPU's plan for adding large amounts of solar power between now and 2030, as expressed in its Final Capstone Report dated January 7, 2021, calls for 7,464 MW of additional solar capacity between EY 2022 and 2030 (in addition to EY 2021 construction), essentially more than tripling the amount of solar generation in the state relative to the 2020 total. It is plainly evident that achievement of these BPU goals, and the requirements of the Clean Energy Act, the EMP, and the Global Warming Response Act, will require an orderly, efficient, fair, and timely program of infrastructure improvements that will make the grid ready for this unprecedented change.

10. MSSIA has recognized the importance of the matter described in the current ACE filing for some time. On the time scale during which regulated utilities have existed in the state, the problems discussed here are relatively recent. Throughout that 100-plus year history, the problem of *congestion* has been known. However, congestion was tackled in an electric grid that operated in a "top-down" fashion, with electric power flowing from primarily large, central power plants "downwards" through the transmission system, then the distribution system, to users. Now, and increasingly in the future,

much of the electric power is flowing, and will increasingly flow, "upwards" through the distribution system, then through the transmission system. The issues and problems discussed here thus concern congestion in the reverse direction.

While New Jersey's appreciation of the issues raised by this change to distributed generation and the resulting "bottom-up" flow of electricity is recent, it is by no means new to the current ACE filing. Issues surrounding distributed generation have been experienced for years in jurisdictions where the penetration of solar energy is more advanced, like Germany and California. In 2014, PJM published its *PJM Renewable Integration Study*, which determined that billions of dollars of transmission upgrades would be needed if 20%, or 30%, renewable targets were to be achieved over the ensuing 10 to 15 years. It should be noted here that in the new "bottom-up" paradigm, infrastructure readiness issues will occur at the distribution level years before they occur at the transmission level; and that the requirements of the Clean Energy Act include *50%* renewable electricity in the next *nine years* – a much more ambitious target than those studied by PJM.

Furthermore, MSSIA provided testimony, written comments, and presentations for EMP stakeholder meetings and hearings in 2018 and 2019, as well as for several BPU dockets and in meetings with staff.

11. While the challenge of making the electric grid ready for renewables has come to the fore in recent years, the ACE filing for its first Solar Hosting Initiative is the first time, to my knowledge, that a substantial step toward answering that challenge has been formally proposed through regulation. MSSIA has recommended an approach like the one currently proposed by ACE in its comments and testimony. MSSIA notes that a similar approac The new paradigm being ushered in by distributed generation and high-penetration renewables demands a *new regulatory philosophy*, one that can accomplish the needed infrastructure upgrades in the most efficient, orderly, and timely manner. MSSIA believes that it can contribute analysis and reasoning that can aid in illuminating BPU's consideration of ACE's filing.

11. MSSIA seeks to intervene on its own behalf and jointly with the Solar Energy Coalition, another New Jersey-based solar trade organization, and with the Solar Energy Industries Association, a national trade organization representing solar businesses. No other party to this Petition adequately represents MSSIA's substantial financial and legally protected interest in the outcome of the ACE petition.

12. If permitted to intervene in this Petition, MSSIA will participate in a cooperative and constructive manner that will not cause any undue delay in the resolution of the Petition. Specifically, MSSIA will abide by the procedural schedule outlined by ACE in its Petition at p. 14, or as it may be amended. I am aware that if I have willfully made any false assertions in this Certification that I may be punished.

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Lyh Rawlings