RECEIVED 2018 SEP 26 1:03 PM (E)

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA
1325 G STREET N.W., SUITE 800
WASHINGTON, D.C. 20005

ORDER

September 26, 2018

FORMAL CASE NO. 1130, IN THE MATTER OF THE INVESTIGATION INTO MODERNIZING THE ENERGY DELIVERY SYSTEM FOR INCREASED SUSTAINABILITY,

RM-09-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 9 — NET ENERGY METERING;

RM-13-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 13 — RULES IMPLEMENTING THE PUBLIC UTILITIES REIMBURSEMENT FEE ACT OF 1980;

RM-29-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 29 — RENEWABLE ENERGY PORTFOLIO STANDARD;

RM-36-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 36 — ELECTRICITY QUALITY OF SERVICE STANDARDS;

RM-40-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 40 — DISTRICT OF COLUMBIA SMALL GENERATOR INTERCONNECTION RULES;

RM-41-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 41 — THE DISTRICT OF COLUMBIA STANDARD OFFER SERVICE RULES;

RM-42-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 42 — FUEL MIX AND EMISSIONS DISCLOSURE REPORTS; AND

RM-44-2017-01, IN THE MATTER OF 15 DCMR CHAPTER 44 — SUBMETERING AND ENERGY ALLOCATION, Order No. 19692

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia ("Commission"), pursuant to D.C. Code § 34-802 and in accordance with D.C. Code § 2-505, adopts the attached amendments to provisions of Title 15 (Public Utilities and Cable Television) of the District of Columbia Municipal Regulations ("DCMR"): Chapter 9, "Net Energy Metering;" Chapter 13, "Rule Implementing the Public Utilities Reimbursement Fee Act of 1980;" Chapter 29, "Renewable Energy Portfolio Standard;" Chapter 36, "Electric Quality of Service Standards;" Chapter 40, "District of Columbia Small Generator Interconnection Rules;" Chapter 41, "The District of Columbia Standard Offer Service Rules;" Chapter 42, "Fuel Mix and

Emissions Disclosure Reports;" and Chapter 44, "Submetering and Energy Allocation." The attached amendments will become effective upon the date of publication of the Notice of Final Rulemakings ("NOFR") in the *D.C. Register*. The Commission also directs, pursuant to paragraph 33 of this Order, the Non-wires Alternatives to Grid Investments working group, established by Order No. 19432 in the MEDSIS Initiative, to consider utility ownership of DERs, like energy storage devices, and submit its recommendations on the subject to the Commission for consideration. In accordance with paragraph 43 of this Order, the Commission directs that the Non-wires Alternatives to Grid Investments working group shall also develop a definition for the term "smart inverter" and submit the definition to the Commission for consideration. Finally, the RM9 Net Energy Metering ("NEM") Working Group established by Order No. 19676 in *Formal Case No. 1050*, shall consider, in accordance with paragraph 49 of this Order, whether the generating threshold for net energy metering systems for individual behind-the-meter generators should be increased beyond 100 percent of the customer's historical usage.[1]

II. BACKGROUND

2. The Government of the District of Columbia has established a clear policy of encouraging the deployment of Distributed Energy Resources ("DER"), including distributed generation, such as solar energy and cogeneration facilities both standing alone as well as part of microgrids.[2] As deployment of distributed generation ("DG") expands and adjusts to meet demand, the Commission must examine how it can best use its regulatory authority to support the District's energy goals while simultaneously adhering to current statutes that prohibit the construction of electric generating facilities for the purpose of the sale of electricity without first obtaining Commission approval.

3. On March 17, 2016, in Order No. 18144, the Commission sought comments on more general but related questions concerning distributed generation deployment and the nature of a retail sale. These comments were considered by Staff and summarized in the Modernizing the Energy Delivery System for Increased Sustainability ("MEDSIS") Staff Report, issued in *Formal Case No. 1130* on January 25, 2017. In the MEDSIS Staff Report, Commission Staff also identifies various potential regulatory issues that create uncertainty in the deployment of new technologies on the District's natural gas and electricity distribution grids and provides recommended actions to address the issues identified. Most notably, Staff recommends that the Commission adopt and amend pertinent DER-related definitions in our regulations in order to establish a consistent language for addressing the complex issues related to modernizing the District's energy systems, especially as it relates to future DER deployment.

4. On November 3, 2017, the Commission issued the MEDSIS NOPRs aiming to provide regulatory clarity by establishing a consistent set of definitions that will facilitate public

---

[1] *Formal Case No. 1050, In the Matter of the Investigation of Implementation of Interconnection Standards in the District of Columbia* ("*Formal Case No. 1050*"); *RM-40-2017-01, In the Matter of 15 DCMR Chapter 40 – District of Columbia Small Generator Interconnection Rules*, Order No. 19676, rel. September 19, 2018 ("Order No. 19676").

[2] *See generally*, The District Department of Energy and Environment's Clean Energy DC Plan – Updated August 2018. https://www.dropbox.com/s/4s7rlpxgnd40epr/18027D_CEP_Report_p01_2018-08-16.pdf?dl=0

input into modernizing the District's energy systems.[3] Comments and reply comments on the NOPRs were due no later than sixty (60) and thirty (30) days, respectively, after the publication of the NOPRs in the *D.C. Register*.

5. On December 22, 2017, Sun Power Corporation ("Sun Power") filed comments on the NOPRs.[4] On January 2, 2018, the Potomac Electric Power Company ("Pepco"),[5] the Office of the People's Counsel ("OPC"),[6] Sunrun, Inc. ("Sunrun"),[7] and WGL Energy filed comments.[8] On January 3, 2018, Oracle Utilities ("Oracle") filed a Petition to File Out of Time and Initial comments regarding the NOPRs.[9] On January 5, 2018, DC Climate Action ("DCCA") filed its Initial Comments Regarding the Notices of Proposed Rulemaking with a Motion to File Out of

---

[3] *D.C. Reg.* 11508-11514 (November 3, 2017). The Commission currently issued a NOPR for our Chapter 21 rules; however, the comments filed specifically pertaining to those rules and any changes adopted by the Commission will be addressed separately.

[4] *Formal Case No. 1130, In the Matter of the Investigation into Modernizing the Energy Delivery System for Increased Sustainability* ("*Formal Case No. 1130*"), Initial Comments of SunPower Corporation, filed December 22, 2017 ("SunPower's Comments").

[5] *Formal Case No. 1130*, Initial Comments of Potomac Electric Power Company on the Notices of Proposed Rulemaking in MEDSIS, filed January 2, 2018 ("Pepco's Initial Comments"). In its initial comments, Pepco asserts that it "generally agrees with the new and revised definitions proposed in the MEDSIS NOPRs;" however, the Company proposes changes to the definitions of "Electric storage," "Distributed Energy Resource," and "Smart Inverter."

[6] *Formal Case No. 1130*, Initial Comments of the Office of the People's Counsel for the District of Columbia Regarding the Notice of Proposed Rulemaking Containing Proposed Amendments to Chapter 21 or Title 15 of the District of Columbia Municipal Regulations, at 2, filed January 2, 2018. OPC asserts that it "believes that this NOPR in correlation with the MEDSIS proceeding can assist in the development of a more reliable, resilient, and affordable energy delivery system by clearly defining commonly used terms in the industry."

[7] *Formal Case No. 1130*, Comments of Sunrun Inc. on Notice of Proposed Rulemaking on Amendments to Various Definitions, filed January 2, 2018 ("Sunrun Initial Comments").

[8] *Formal Case No. 1130; RM21-2017-01, In the Matter of 15 DCMR Chapter 21 – Provisions for Construction of Electric Generating Facilities and Transmission Lines* ("*Formal Case No. 1130 and RM21-2017-01*"), Initial Comments of WGL Energy Services, Inc and WGL Energy Systems, Inc. on the Commission's Notice of Proposed Rulemaking, filed January 2, 2018 ("WGL Energy's Comments").

[9] *Formal Case No. 1130*, Oracle Utilities' Petition to File Out of Time and Initial Comments Regarding the Notices of Proposed Rulemaking Containing Proposed Amendments to Chapter 9 and Chapter 40 of Title 15 of the District of Columbia Municipal Regulations, filed January 3, 2018 ("Oracle's Comments or Oracle's Motion"). In its Motion, Oracle states that due to a mistake in evaluating the filing deadline, it filed its Comments one day late, but granting its Petition will not harm nor prejudice the interests of any party. The Commission finds that Oracle has presented good cause for its request; therefore, its Motion is granted.

Time.[10] On February 1, 2018, Pepco, Sunrun, and DCCA filed reply comments.[11]

6. Based on the comments received, the Commission revised the proposed rules and a Second NOPR was published in the *D.C. Register* on May 4, 2018.[12] Public comments on the Second NOPR were due within thirty (30) days after its publication in the *D.C. Register*. Comments on the Second NOPR were filed by Pepco,[13] WGL,[14] Exelon Generation Company,[15] Sunrun,[16] and Mr. David Roodman.[17]

7. On August 24, 2018, the Commission published a limited NOPR in the *D.C. Register* regarding the removal of the term "non-traditional marketer" from the definition of "Electricity supplier."[18] The NOPR explicitly stated: "This NOPR does not supersede the NOPR issued in the above captioned matter on May 4, 2018, in its entirety. The changes herein only apply to the definition of 'Electricity supplier' or 'competitive electricity supplier.' Comments

---

[10] *Formal Case No. 1130*, DC Climate Action's Motion to File Out of Time and Initial Comments on the Notices of Proposed Rulemaking in MEDSIS at 1-2, filed January 5, 2018 ("DCCA Initial Comments or DCCA Motion"). In its Motion, DCCA, a non-profit civic group, asserts that the three-day delay occurred due to holiday schedules, and believes that the delay will not harm or prejudice the interests of any party. DCCA further states that its comments will benefit the Commission and parties in this case given its longstanding participation and knowledge of the District of Columbia's ("District") energy distribution system. The Commission finds that DCCA has presented good cause for its request; therefore, its Motion is granted.

[11] *Formal Case No. 1130*, Reply Comments of Potomac Electric Power Company on the Notices of Proposed Rulemaking in MEDSIS, filed February 1, 2018 ("Pepco Reply Comments"). *Formal Case No. 1130*, Reply Comments of Sunrun Inc. on Notice of Proposed Rulemaking on Amendments to Various Definitions, filed February 1, 2018 ("Sunrun Reply Initial Comments"). *Formal Case No. 1130*, Reply Comments of DC Climate Action on the Notices of Proposed Rulemaking in MEDSIS, filed February 1, 2018 ("DCCA Reply Comments").

[12] 65 *D.C. Reg.* 4846-4851 (May 4, 2018).

[13] *Formal Case No. 1130*, Comments of Potomac Electric Power Company on the Second Notice of Proposed Rulemaking in MEDSIS, filed June 4, 2018 ("Pepco 2nd NOPR Comments").

[14] *Formal Case No. 1130*, Comments of WGL Energy Services, Inc. and WGL Energy Systems, Inc. on Second NOPR in MEDSIS, filed June 4, 2018 ("WGL Energy 2nd NOPR Comments"). In its comments on the 2nd NOPR, WGL Energy asserted that it had no comments, accepts the proposed definitions in the captioned documents as the Commission has outlined, and are looking forward to continued engagement as stakeholders in this matter. WGL Energy Comments at 1-2.

[15] *Formal Case No. 1130*, Comments of the Constellation NewEnergy, Inc. and Exelon Generation Company, LLC on Second NOPR in MEDSIS, filed June 4, 2018 ("Exelon Gen. 2nd NOPR Comments"). In its comments on the 2nd NOPR, ExGen/Constellation asserts that it supports the Commission's initiative to modernize the delivery system and modify the regulations. ExGen at 1. ExGen/Constellation noted that it did not submit any comments on the 1st NOPR but that it supported Sections 2111.1 and 2111.2. ExGen at 2. ExGen/Constellation also explained that it does not object to the addition to Section 2111.1 which provides procedural clarity. ExGen at 2.

[16] *Formal Case No. 1130*, Comments of Sunrun Inc. on Notice of Second Proposed Rulemaking on Construction of Electric Generating Facilities, filed June 4, 2018 ("Sunrun 2nd NOPR Comments").

[17] *Formal Case No. 1130*, Comments of David Roodman on Second Notice of Proposed Rulemaking, of May 4, 2018, in Formal Case No. 1130, Relating to 15 DCMR 9, filed June 4, 2018 ("Roodman Comments").

[18] 65 *D.C. Reg.* 8782-8784 (August 24, 2018).

received on all other portions of the May 4, 2018 NOPR are still under consideration by the Commission. The Commission received no comments on the August 24th limited NOPR.

III. DISCUSSION

8. The Commission notes that there was consensus amongst the commenters regarding the majority of the proposed rule changes. Therefore, the Commission shall adopt these rules as final without further discussion. However, to the extent that commenters disagreed or proposed additional changes to the rules, the Commission provides the rationale behind adopting or rejecting the proposed changes below.

A. Section 999.1 of Chapter 9, and Section 4099.1 of Chapter 40

1. Battery

9. **DCCA.** Recognizing that energy storage is an already proposed term in the Commission's distributed energy resources ("DER"), DCCA suggests that the definition be broadened, by replacing it with the term "energy storage" or "energy storage technology" while "including but not limited to technology that can store electricity as thermal energy and technology that can store gas."[19]

10. **SunPower.** SunPower recommends defining the term "energy storage" instead of the term "battery" because this "would encompass broader technologies than solely how one type of energy storage works," and "would provide greater flexibility for storage technologies to access the District's distributed energy resource rules and opportunities."[20] Further, SunPower recommends that the "definition should focus on a technology's capabilities (and minimum requirements) and not on the method of that storage."[21]

11. **Decision**. The Commission agrees that the term battery is encompassed in the definition of energy storage and that the definition should focus on the technology's capabilities instead of focusing on individual storage methods. Therefore, we remove this definition from the rulemaking.

2. Distributed Energy Resource ("DER")

12. **Pepco**. Pepco asserts that the use of the undefined terminology "source" and "sink" in the definition of DER introduces confusion and uncertainty. Therefore, "Pepco proposes to revert to the use of the word 'resource,'" which was in the prior version of the definition.[22]

---

[19] DCCA Initial Comment at 3. On February 1, 2018, DC Climate Action filed its Reply Comments reiterating with the support of Pepco, that the Commission should consider its recommendation that the "battery" definition indicate "energy storage systems" as an alternative term for battery. *See* DCCA Reply Comments.

[20] SunPower's Comments at 2.

[21] SunPower's Comments at 2.

[22] Pepco's Initial Comments at 5-6

13. **DCCA.** DCCA states that the Commission should include thermal-related DER's, such as "anaerobic digesters, fuel cells, sewage therms, and solar thermal" under the definition.[23]

14. **Sunrun.** Sunrun "generally supports the amendment of the definition of Distributed Energy Resources, but encourages the Commission to adopt a more simplified definition" by clarifying "that a DER is not necessarily either a source or sink of power."[24] Sunrun explains that "certain demand response or energy storage technologies (e.g., a load control device) do not necessarily serve as an energy 'sink' or 'source,' but should be considered DERs to the extent that they are connected to the distribution system or sited on a customer's property."[25] Further, Sunrun "recommends amending the definition to remove reference to the use or purpose of a DER" and explains that the "purpose of defining a 'distributed' energy resource is to differentiate these resources from transmission-connected, centrally-located, grid-supply resources."[26] Sunrun contends that "[t]he specific use of a DER therefore is not relevant because a DER might not necessarily be installed for both the purpose of a customer on-site energy needs *and* for services and supply to the grid."[27] Sunrun recommends that the Commission consider a similar approach to California or New York, which utilize a simpler definition.[28]

15. **Decision**. In the Second NOPR, the Commission accepted Pepco's and Sunrun's recommendations to replace the term "source and sink" with the original term "resource" in order to eliminate confusion. We did not adopt DCCA's proposed additional language because those terms are encompassed in "energy storage" which is a part of the definition of DER. Furthermore, we did not adopt California's and New York's definitions, as recommended by Sunrun, because those definitions, while general in nature, are designed to operate within a single state ISO that controls both the distribution and wholesale markets for electricity. The definition proposed in the First NOPR provides greater clarity and addresses the characteristics of DER that fall within the Commission's purview.

3. Cogeneration Facility or Combined Heat and Power ("CHP") Facility

16. **DCCA.** In response to the First NOPR, DCCA recommended that the addition of the word "residential" to the definition of CHP, making the definition:

"A system that produces both electric energy, steam, or other forms of useful energy

---

23 DCCA's Initial Comment at 4.

24 Sunrun's Initial Comments at 6.

25 Sunrun's Initial Comments at 6-7.

26 Sunrun's Initial Comments at 7.

27 Sunrun's Initial Comments at 7. (Emphasis in original.)

28 Sunrun's Initial Comments at 7, citing Cal. Pub. Util. Code § 769(a) and Order Establishing Framework and Uniform Business Practices for Distributed Energy Resource Suppliers, Case 15-M-0180 (October 19, 2017) at 1, and Reforming the Energy Vision NYS Department of Public Service Staff Report, Case 14-M-0101 (April 24, 2014) at 12-13.

> (such as heat) that are used for industrial, commercial, residential, heating or cooling purposes."

DCCA asserts that with this change, the definition will encompass other systems that might "serve (non-profit) multi-family coop and condo buildings, and CHP based-district energy systems. . ."[29] DCCA notes that "fuel cells are a potent co-generation system, generating both electricity and waste heat that can be used effectively for thermal energy – and can be powered by renewables."[30]

17. **Decision**. In the Second NOPR, the Commission accepted DCCA's recommendation to add "residential" to the definition because it provides broader applicability of the term CHP to all rate classes and there is no reason to exclude the residential class (*i.e.*, R and MMA). No comments on this change were filed in response to the Second NOPR.

4. Demand Response ("DR")

18. **Oracle.** In its comments on the First NOPR, Oracle expressed support for the initiatives driving these proposed rule amendments, but it believes that the definition for DR is "overly narrow and fails to encompass behavioral demand response programs."[31] Oracle notes that even though the Commission tailored its definition to FERC's, the definition puts restrictions on the two types of demand response programs, "(1) [ ] programs that include a price signal and (2) those programs that include an incentive payment."[32] Oracle recommended the following amendments to the definition of DR:

> "A reduction or modification in the consumption of electric energy by customers from their expected consumption in response to ~~either~~ an increase in the price of electric energy, incentive payments, or behavioral signals designed to induce lower consumption of electric energy."

19. **Decision**. In the Second NOPR, the Commission accepted Oracle's proposed addition to the definition of DR because it provides a more inclusive definition of demand response that covers price and non-price signals. No comments on this change were filed in response to the Second NOPR.

5. Distributed Generation ("DG")

20. **DCCA.** In response to the First NOPR, DCCA recommended that the Commission reflect in the definition that distributed generation "could also apply to a gas generating facility such as an anaerobic digester that is connected to the gas distribution system."[33]

---

29 DCCA's Initial Comment at 3.

30 DCCA's Initial Comment at 3.

31 Oracle's Motion at 2.

32 Oracle's Comments at 3.

33 DCCA Initial Comment at 4.

21. **Decision**. The Commission rejected DCCA's recommended language because distributed generation deals with the generation of electricity not the production of gas. Therefore, DCCA's proposed change is inapplicable to the term.

6. Electric Storage

22. **Pepco.** In its comments on the First NOPR, Pepco asserted that "[e]nergy storage can provide a wide range of distribution system and customer benefits, with decreasing energy storage system costs in the coming years allowing for greater application opportunities."[34] Pepco asserted that the term "Electric Storage" should be revised to "Energy Storage" in order to accommodate for "other types of stored energy and [ ] better facilitate emerging technologies (*e.g.*, thermal energy storage . . .)."[35] Pepco proposed the following changes:

> "~~Electric~~ Energy storage" – A resource capable of absorbing ~~electric~~ energy, storing it for a period of time and thereafter dispatching the energy regardless of where the resource is located on the electric distribution system. These resources include all types of ~~electric~~ energy storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, electric vehicles, compressed air), or operational purpose. An energy storage resource may be owned by an electrical company and is not an electric generating facility, as defined in D.C. Code Section 34-205.

23. Pepco asserted that it is essential that energy storage is "not generation" and that the "Commission should make clear that the scope of energy storage services envisioned in the MEDSIS proceeding includes utility-owned storage in order to promote a more reliable and resilient distribution system, overall system efficiency, and lower costs to customers."[36] Pepco also asserted that because "the deployment of energy storage technologies presents many of the same issues associated with grid integration of DERs . . . decisions about battery placement and operations by customers [ ] must be closely coordinated with Pepco, and energy storage owners should be required to proceed through the interconnection process."[37] Pepco contends that utility-owned energy storage resources should be able to participate in energy markets, providing ancillary services.[38]

24. **Sunrun.** Sunrun supported "adding the definition for electric storage to the District's energy regulations" but recommends that the Commission adopt with revisions the definition proposed in *Formal Case No. 1050* NOPR as a template for the definition in this NOPR.[39] Sunrun recommends the following definition for the term electric storage:

---

34 Pepco's Initial Comments at 2.

35 Pepco's Initial Comments at 3.

36 Pepco's Initial Comments at 3-4.

37 Pepco's Initial Comments at 5.

38 Pepco's Initial Comments at 5.

39 Sunrun's Initial Comments at 8.

> "Electric storage" – A resource capable of absorbing electric energy from the grid, from a behind-the-meter generator, or other DER, storing it for a period of time and thereafter dispatching the energy for use on-site or back to the grid, regardless of where the resource is located on the electric distribution system. These resources include all types of electric storage technologies, regardless of their size, storage medium (e.g., batteries, flywheels, electric vehicles, compressed air), or operational purpose.[40]

Sunrun favors this definition because it makes clear "that electric storage is capable of absorbing and storing energy from BTM generation, not only from the grid."[41]

25. **Pepco Reply.** In response to Sunrun's proposed change to the definition of electric storage to include the phrase "behind-the-meter generator," Pepco asserts that its proposed definition "accomplishes the purpose of the changes in the Sunrun Definition Comments without significant changes to the definition in the MEDSIS NOPRs, and it makes important clarifications to the definition of storage, including its necessary expansion beyond electric storage to energy storage."[42]

26. Pepco opposes Sunrun's suggestion that behind-the-meter energy storage would be providing services solely for PJM, asserting that "[i]f storage is behind the meter, it is part of the NEM process and should not be participating in PJM." Pepco supports in-front-of-the-meter energy storage participation in PJM, but asserts that it "has an obligation to ensure the safe and reliable operation of its distribution system;" therefore, "systems that are being used as Demand Response Resources should continue to be required to submit an application to Pepco or PJM and be evaluated by Pepco for any potential impacts to the distribution system."[43]

27. Pepco notes that the "addition of storage to the Photovoltaic ('PV') system adds a level of complication to the Solar Renewable Energy Credit ('SREC') program" because "energy taken from the grid and stored in the storage device could be incorrectly delivered back to the grid and result in additional SREC creation." Pepco advises that the Commission "consider what regulatory changes are necessary to protect the integrity of the SREC program or require specific metering requirements in these combined installments to ensure that only energy produced by the PV system is being used for the creation of SRECS."[44]

28. **DCCA Reply.** DCCA asserts that it does not support Pepco's comments to include classification and ownership of energy storage in the definition of "battery," noting specifically that those terms, and related issues, are "vitally important in the way the District's distributed

---

40 Sunrun's Initial Comments at 8.

41 Sunrun's Initial Comments at 8.

42 Pepco's Reply Comments at 2.

43 Pepco's Reply Comments at 3.

44 Pepco's Reply Comments at 3-4.

energy resources are developed;" thus, DCCA recommends that these issues be developed through a fuller investigation in a separate proceeding.[45] DCCA suggests that the Commission engage a MEDSIS stakeholder working group to review issues raised by Pepco pertaining to energy storage systems. DCCA also notes that understanding that the group would need precedent of other jurisdictions who have investigated this issue, it provides an assembled summary and recent reports for the working group to review and consider.[46]

29. **Sunrun Reply.** Sunrun "does not object to Pepco's recommendation that the term be changed to 'energy storage' from 'electric storage'" because it "would appropriately allow for overage of thermal energy systems within the definition."[47] Sunrun further states that "framing the definition in the regulation to include thermal energy systems aligns with the objectives of" MEDSIS.[48] Regarding Pepco's proposal to add language that would enable the Utility to own energy storage, "Sunrun vigorously opposes the recommendation to the extent that it would allow Pepco to own BTM energy storage resources."[49] Sunrun asserts that "[u]tility ownership of BTM energy storage, and [DER] more broadly, would have grave consequences to ratepayers and undermine the District's mandates and support for competition and consumer choice."[50] Further, Sunrun states its agreement with Pepco that "energy storage is not generation," however Sunrun asserts that "the BTM energy storage market is a competitive market."[51] Finally, Sunrun asserts that "a competitive and fair playing field for energy storage is an issue of high importance to the District's grid modernization goals" and "only ratepayers and third-party companies should be able to own BTM energy storage."[52] On this basis, Sunrun recommends that the Commission reject Pepco's language.

30. **Pepco Comments on May 4th NOPR**. In its comments on the Second NOPR issued in this proceeding, Pepco recognized that the Commission changed the defined term from "electric storage" to "energy storage" but confused "electric" to "energy" within the definition itself. Pepco reiterated that energy storage is not generation.[53] Moreover, Pepco indicated that it is currently evaluating potential opportunities for energy storage investments to support distribution system operating needs and reliability performance.[54] Pepco outlined multiple energy

---

45 DCCA's Reply Comments at 2.

46 DCCA's Reply Comments at 2-3.

47 Sunrun's Reply Comments at 2.

48 Sunrun's Reply Comments at 2.

49 Sunrun's Reply Comments at 3.

50 Sunrun's Reply Comments at 3.

51 Sunrun's Reply Comments at 3.

52 Sunrun's Reply Comments at 4.

53 Pepco's 2nd NOPR Comments at 2.

54 Pepco's 2nd NOPR Comments at 2.

storage applications that are particularly appropriate for direct integration with utility systems.[55]

31. Furthermore, Pepco states that the Commission should be amenable to utility-owned energy storage with rate recovery.[56] The Commission should also clarify that the deployment of energy storage technologies presents many of the same issues associated with grid integration of other DERs.[57] Pepco calls for close coordination with battery placement and energy storage to ensure reliability.[58] Based on the above, Pepco provides the following proposed definition for the term Energy Storage:

> "Energy storage" – A resource capable of absorbing electric energy from the grid, from a behind-the-meter generator, or other DER, storing it for a period of time and thereafter dispatching the energy for use on-site or back to the grid, regardless of where the resource is located on the electric distribution system. These resources include all types of ~~electric~~ energy storage technologies, regardless of their size, storage medium (*e.g.*, batteries, flywheels, electric vehicles, compressed air), or operational purpose. An energy storage resource may be owned by an electric company and is not an electric generating facility, as defined in D.C. Code Section 34-205.

32. **Decision.** In the Second NOPR, the Commission accepted Pepco's proposal to change the term to "Energy storage" as it is in line with other proposed changes to the rules it is also more inclusive and covers thermal energy systems such as solar thermal or geo-thermal. While FERC uses "electric storage," energy storage is a broader and more encompassing term. The Commission also accepts Sunrun's additional language, which clarifies the capabilities of energy storage devices to absorb energy from more sources than the grid. In the Second NOPR, we changed the term from electric storage to energy storage to be more inclusive and while the Commission accepts Pepco's recommendation in response to the Second NOPR to further clarify the use of "energy" and "electric" within the definition itself, gas storage systems used to withdraw or inject gas have different functions and rules which are not contemplated in this definition here.

33. The Commission rejects, as unnecessary and inappropriate for a rulemaking, Pepco's proposed additional language regarding utility ownership of energy storage resources; that matter should be further discussed in the consultant-led MEDSIS working group process, such as the Non-wires Alternatives to Grid Investments working group. The Commission therefore defers discussion of this matter to the consultant-led MEDSIS working group process.[59] Further, Sunrun's claims that the utility should not be allowed to own energy storage resources because

---

55 Pepco's 2nd NOPR Comments at 2.

56 Pepco's 2nd NOPR Comments at 3.

57 Pepco's 2nd NOPR Comments at 4.

58 Pepco's 2nd NOPR Comments at 4.

59 *See also* Order No. 19676, ¶ 17 ("The Non-wires Alternatives to Grid Investments working group, established by Order No. 19432 in the *Formal Case No. 1130* docket, shall consider utility ownership of energy storage devices and other distributed energy resources and shall submit its recommendation on the subject to the Commission for consideration in its final working group report.")

energy storage services can be provided through the competitive market. However, a determination as to whether this is a competitive service is also not appropriate for a rulemaking but instead is subject to a request under D.C. Code § 34-1504(e).

7. Eligible Customer Generator

34. **DCCA.** In its comments on the First NOPR, DCCA suggested the following changes to the definition of Eligible Customer Generator:

> "means a customer generator whose net energy metering system for renewable resources, cogeneration, fuel cells, and or microturbines or other means of generation by fossil fuel or renewable energy meets all applicable safety and performance standards."[60]

35. **Decision**. The Commission rejected DCCA's recommended change to the definition of "eligible customer generator" because renewable resources are already covered in the proposed definition. Moreover, the proposed definition is consistent with the 1999 Retail Competition and Consumer Protection Act which defined the allowed fuel types for net metering.

8. Fossil Fuel Generator

36. **DCCA.** In its comments on the First NOPR, DCCA requested that the Commission provide "parallel language for gas for purposes of this section on net metering and interconnection" and that the word *other* be deleted since "no reference to a petroleum product precedes it." Therefore, DCCA recommends that fossil fuel generator be revised to mean:

> "Any electric generating facility that utilizes coal, natural gas, or any ~~other~~ petroleum product as fuel."[61]

37. **Decision**. In the Second NOPR, the Commission accepted DCCA's request to remove the word "other" from the definition of fossil fuel generator. However, we rejected DCCA's proposed "parallel" language because we rejected DCCA's proposed changes to the definition of Distributed Energy Resource.

9. Fuel Cell

38. **DCCA.** In its comments on the First NOPR, DCCA recommended the following amendment to the definition of Fuel Cell, asserting that the definition would read more accurately for the purposes of MEDSIS:

> An electrochemical device that produces electricity through a ~~chemical~~ reaction of hydrogen fuel with oxygen or another oxidizing agent ~~between a source of fuel and~~

---

60 DCCA's Initial Comments at 5.

61 DCCA's Initial Comments at 4.

~~an oxidant~~. Fuel cells generate significant amounts of waste heat that can be used for heating purposes making them valuable combined heat and power (CHP) technology.[62]

39. **Decision**. The Commission rejected DCCA's proposed changes to the definition of fuel cell as the Commission's proposed definition is broader and will accommodate future developments in fuel cell technology. Additionally, Commission views the second sentence proposed by DCCA as unnecessary descriptive language.

10. Smart Inverter

40. **Pepco Reply.** In its comments on the First NOPR, Pepco asserted that the proposed definition of "Smart Inverter" "is too restrictive for use without more context and clear application of Pepco's system." Pepco asserts that the smart inverters being used in its smart inverter pilot project in the District of Columbia "are a rapidly evolving technology with multiple functionalities;" therefore, the proposed "definition should be removed from the MEDSIS NOPRs because it is likely to be addressed more effectively following pilot projects in which the associated technology and applications are actually deployed."[63]

41. **DCCA.** DCCA states that smart inverters are also mentioned as "advanced inverters," thus the definition should reflect this alternative term. Also, DCCA notes that because DER's can also include gas systems, the definition should clarify the phrase "Distributed Energy Resources on the electric grid."[64] DCCA notes that even though Pepco raises important questions relating to the "smart inverter" definition and what it fails to encompass, DCCA recognizes that "[i]n light of the District's clean energy goals and roadmap, its Solar for All Program, and Pepco's experience with pilot projects using smart inverters in the District and elsewhere in its territories in recent years, the NOPR needs to take this technology into account," therefore, given this, it is more of reason to improve the definition instead of completely removing it.[65]

42. **Sunrun Reply.** Sunrun "agrees with Pepco that the Commission's proposed definition of smart inverter is restrictive as drafted" but "disagrees with Pepco's assertion that deliberation regarding an appropriate definition should be removed from the MEDSIS process."[66] Sunrun recommends "that the definition be revised to remove the term 'controlled' and replace it with the phrase 'autonomously respond.'"[67] Sunrun put forward examples of definitions from Hawaii and California as more appropriate. Citing the complexity of this issue, Sunrun recommends "that the Commission establish a working group to focus on developing smart

---

62 DCCA's Initial Comments at 4-5.

63 Pepco's Initial Comments at 6.

64 DCCA's Initial Comments at 5.

65 DCCA's Reply Comments at 3.

66 Sunrun's Reply Comments at 4.

67 Sunrun's Reply Comments at 4.

inverter standards that ensure consumer protection and [a] competitive marketplace to leverage DERs for vast power system operations benefits."[68]

43. **Decision**. The Commission agrees with commenters that the definition of smart inverter may be too restrictive as the technology is being developed. We find Pepco and Sunrun's recommendation that the definition be addressed in the MEDSIS Initiative persuasive. Therefore, we removed the definition from the Second NOPR and now direct that the definition of smart inverter be developed as a part of the consultant-led working group process in the MEDSIS Initiative. Development of the definition is designated to the Non-wires Alternatives to Grid Investments working group established by Order No. 19432 and the group shall submit a proposed definition of "smart inverter" to the Commission for consideration and adoption.

B. Additional Chapter 9 Matters

44. **DCCA.** In its comments on the First NOPR, DCCA asks the Commission to provide a definition for nontraditional marketers or a reference to a definition in Chapter 44, Section 449 (h).[69]

45. **Oracle.** Oracle requests the addition of implementing a behavioral demand response ("BDR") program, which is "a program that uses behavioral signals to induce customers to reduce electric consumption," in other words, the program sends "personalized, real-time communications via digital channels (including email, phone call, and text message) and utilize message framing that has been demonstrated to influence customer behavior."[70] Oracle states that it has experience in developing and implementing such programs, has partnered with various jurisdictions with results of achieving over 14 MW of load reduction, and independently has the programs verified by several impact evaluations.[71] Oracle also mentions that it "estimates a potential for over 15 MW of BDR" for the District.[72]

46. **Decision**. The matter about Price Responsive Demand or dynamic pricing has been addressed in *Formal Case No. 1114*.[73] As stated above, we already adopted Oracle's definition of demand response program. It is unclear whether Oracle is proposing any specific demand response program or not. In any event, *Formal Case No. 1114* is the dynamic pricing proceeding. If there is any specific proposal or motion, Oracle can file the proposal in *Formal Case No. 1114*. Alternatively, Oracle may also raise its concern in the MEDSIS consultant-led working group process for further discussion and consideration. In response to DCCA's request that the

---

68 Sunrun's Reply Comments at 5.

69 DCCA's Reply Comments at 2.

70 Oracle's Comments at 4.

71 Oracle's Comments at 4.

72 Oracle's Comments at 4.

73 *Formal Case No. 1114*, In the Matter of the Investigation into the Issues Regarding the Implementation of Dynamic Pricing in the District of Columbia, Order No. 17432, rel. March 28, 2014.

Commission provide a definition of nontraditional marketer, the Commission notes that on August 24, 2018, a limited NOPR issued in the *D.C. Register* in this proceeding removing the term "non-traditional marketer" from the definition of "Electricity supplier" and "competitive electricity supplier" to ensure that definition of Electricity supplier is consistent with the statutory definition.[74] The Commission received no comments in response to the NOPR. As the term "nontraditional marketer" has been removed, there is no need to define it as DCCA requests.

47. **David Roodman.** Mr. Roodman filed comments in response to the Second NOPR issued in this proceeding related to the definition of "Customer-generator" in 15 DCMR § 999. In his comments, Mr. Roodman acknowledges that at the time that he filed his comments on the Second NOPR he had a pending consumer complaint against Pepco before the Commission related to the issues raised in his comments. Specifically, Mr. Roodman states that in the District, the original rulemaking for 15 DCMR Chapter 9 did not quantify "intended primarily" in relationship to a customer generator.[75] Mr. Roodman contends that the language has been interpreted to "impose a 100 percent ceiling on District consumers" who want to interconnect a net metering solar system with the District's distribution system. In other words, in order to obtain interconnection from Pepco for net metering solar systems in the District, a proposed system cannot generate more than 100 percent of the customer's baseline usage.[76] Mr. Roodman asserts that in Maryland Pepco customers can obtain 200 percent of their baseline usage under the interpretation of "intended primarily," arguing that Maryland's interpretation is more reasonable because it allows for customers to have more than their baseline usage, which can be is consistent with the language of "intended primarily" for customer generators.[77]

48. In conclusion, Mr. Roodman proposes that the Commission amend the language in our net energy metering rules and application to harmonize with Maryland's application of the term "intended primarily" within the context of customer generators.[78] Mr. Roodman proposes that clause (e) of the definition of "Customer Generator" in 15 DCMR § 999 should revised to read: "would not exceed 200 percent of the customer-generator's baseline annual usage."[79] Mr. Roodman asserts that this interpretation would remove unnecessary impediments on the application of the statute.[80]

49. **Decision**. The Commission appreciates the comments filed by Mr. Roodman. While we decline to make the requested rule change in the context of the MEDSIS definition NOPR, because prior precedent requires that a customer be able to generate no more that 100

---

74 65 *D.C. Reg.* 8782-8784 (August 24, 2018).

75 Roodman Comments at 2.

76 Roodman Comments at 3.

77 Roodman Comments at 5.

78 Roodman Comments at 6-7

79 Roodman Comments at 7.

80 Roodman Comments at 7.

percent of their historical usage,[81] we believe that the change proposed by Mr. Roodman should be further considered in the RM9 Net Energy Metering Working Group established in Order No. 19676.[82] It is particularly important to consider Mr. Roodman's proposal because it would harmonize our practice with Maryland's and raising the generation threshold could further the District of Columbia's express policy goals of increasing renewable generation from sources within the District of Columbia. Therefore, we direct the RM9 NEM Working Group to consider whether the generating threshold for net energy metering systems for individual behind-the-meter generators should be increased beyond 100 percent of the customers historical usage. The RM9 NEM Working Group shall include its recommendation on this issue when it submits its proposed NOPR for Commission consideration as directed in Order No. 19676.

THEREFORE, IT IS ORDERED THAT:

50. The attached amendments to provisions of Title 15 (Public Utilities and Cable Television) of the District of Columbia Municipal Regulations ("DCMR") Chapters 9, 13, 29, 36, 40, 41, 42, and 44 of the Commission's Rules of Practice and Procedure are hereby **ADOPTED**, effective upon the date of publication of the Notice of Final Rulemakings in the *D.C. Register*;

51. The Non-wires Alternatives to Grid Investments working group established by Order No. 19432 in the MEDSIS Initiative shall develop and submit a definition for the term "smart inverter" to the Commission for consideration;

52. The Non-wires Alternatives to Grid Investments working group established by Order No. 19432 in the MEDSIS Initiative shall consider utility ownership of DERs, like energy storage devices, and submit its recommendations for the Commission's consideration; and

53. The RM9 NEM Working Group established by Order No. 19676 shall consider whether the generating threshold for net energy metering systems for individual behind-the-meter generators should be increased beyond 100 percent of a customer's historical usage. The RM9 NEM Working Group shall include its recommendation on this issue when it submits its proposed NOPR as directed in Order No. 19676.

---

[81] *Formal Case No. 945 and RM9-2015-01, In the Matter of 15 DCMR Chapter 9 – Net Energy Metering – Community Renewable Energy Amendment Act of 2013*, Order No. 17862, ¶ 101, rel. April 24, 2015. ("[C]ustomer is limited by law and Commission rules to installing generation that is forecast to provide no more than 100 percent of annual historical use." *citing* D.C. Code § 34-1501(15) (2001 Ed.)).

[82] By Order No. 19676, released September 19, 2018, the Commission directed the establishment of a RM9 Net Energy Metering Working Group to: (1) consider system upgrade costs related to the interconnection of community renewable energy facilities; and (2) to review the Commission's Net Energy Metering Rules and propose CREF-specific rule changes for the Commission's Consideration. *See Formal Case No. 1050*, Order No. 19676. Pursuant to this Order, the RM9 NEM Working Group shall also consider increasing the generation threshold for individual behind-the-meter generators.

A TRUE COPY: **BY DIRECTION OF THE COMMISSION:**

CHIEF CLERK: **BRINDA WESTBROOK-SEDGWICK**
COMMISSION SECRETARY