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PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA
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WASHINGTON, D.C. 20005

POWER PATH DC ORDER

June 5, 2020

FORMAL CASE NO. 1130, IN THE MATTER OF THE INVESTIGATION INTO MODERNIZING THE ENERGY DELIVERY SYSTEM FOR INCREASED SUSTAINABILITY, Order No. 20364

I. INTRODUCTION

1. By law, the Public Service Commission of the District of Columbia ("Commission") has been prescribed a critical regulatory role that requires the Commission and the utilities we regulate to take into account in all cases meaningful steps to achieve the District of Columbia's ("District") energy and climate change commitments while ensuring affordable, reliable, and secure electric and natural gas distribution service for all customers. If the District is to meet its targeted energy and climate goals in 12 years, then time is of the essence, and we will have to replace a business as usual approach with a consideration of options that result in an expansion of the regulatory paradigm.

2. Our initial PowerPath DC Order issued this past January outlined the critical next steps the Commission and stakeholders will need to embark on to achieve the PowerPath DC vision.[1] Moreover, these steps will help facilitate the District in meeting its energy and climate policies set forth in statute and in its clean energy, climate and sustainability plans.

3. In the initial Order, the Commission took the first of a series of steps that will bring grid modernization to fruition. The Order adopted, with modifications, the following proposed recommendations contained in the Final Working Group Report[2] and Staff Proposed Order No. 19984 ("Staff Order," "Order No. 19984" or "Staff Proposed Order"), issued in this proceeding on August 2, 2019:[3]

> (a) the Distribution System Planning ("DSP") and Non-Wires Alternative ("NWA") Process; (b) the creation of a secure web portal; (c) the creation of a customer microsite for energy service

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[1] *Formal Case No. 1130, In the Matter of the Investigation into Modernizing the Energy Delivery System for Increased Sustainability* ("*Formal Case No. 1130*"), Order No. 20286, rel. January 24, 2020.

[2] *Formal Case No. 1130*, Final Report v1.0 of the DCPSC MEDSIS Stakeholder Working Groups, filed May 31, 2019 ("Final Working Group Report").

[3] *Formal Case No. 1130*, Order No. 19984, rel. August 2, 2019 ("Staff Proposed Order No. 19984").

providers; (d) the establishment of the rate design working group and the creation of a time of use rate; (e) the establishment of a microgrid proceeding; (f) the formation of the Pilot Project Governance Board; and (g) the funding of various studies from the Modernizing the Energy Delivery System for Increased Sustainability ("MEDSIS") Pilot Project Fund Subaccount. The Commission also directed that a rulemaking proceeding proposing definitions for "advanced inverters" and "Non-Wires Alternative" be commenced as recommendations in the Final WG Report.

4. The Commission will address in this Order 11 more Recommendations and Learnings in the Staff Order and Final Working Group Report as follows:

(a) enhancement of customer data access and protection;
(b) stakeholder input on Commission Rules pertaining to DER Ownership;
(c) revision to the language in the PowerPath DC (f/k/a MEDSIS) Vision Statement;
(d) Commission development of a publicly available system-level data webpage;
(e) Commission alignment of PowerPath DC/MEDSIS with the Clean Energy Omnibus Act ("Clean Energy DC Act"); [4]
(f) Commission continuation of improvements to the small generator interconnection process;
(g) Commission action to direct Pepco to update Hosting Capacity Maps on a monthly basis;
(h) the need for demonstrating NWA projects in the District;
(i) Commission establishment of a stakeholder working group around IEEE 1547-2018 Standards and Advanced Inverter Deployment;
(j) Commission consideration of Performance Based Regulation ("PBR") in the District; and
(k) the opportunity to have resilience hubs in the District.

We note here that items (e)-(k) are already being considered in other Commission proceedings, which we will reference in our discussion of each.

5. As we stated in Order No. 20286, "[w]e believe that our initiative to modernize the District's energy delivery system vision recognizes our role in the District's plan to meet its targeted energy and climate goals and expected actions which are set forth" in detail in that Order. We will not reiterate in this Order the various District energy policies and goals which we seek to promote in the PowerPath DC proceeding. Those policies and goals, including recent legislation, can be reviewed in Order No. 20286, paragraphs 5-14. Despite the recent impact of the COVID-19 pandemic, the

[4] See CleanEnergy DC Omnibus Amendment Act of 2018, D.C. Law 22-257, effective March 22, 2019 ("CleanEnergy DC Act").

Commission continues to align PowerPath DC with the Clean Energy DC Act to facilitate reaching the energy goals of the District.

II. BACKGROUND

6. Staff Proposed Order No. 19984 addressed the 42 recommendations and learnings submitted by the MEDSIS working groups in their Final Working Group Report. In the Staff Order, the Commission indicated that, due to the unprecedented nature of the MEDSIS proceeding, it would provide interested persons a period of time from the Staff Order to file additional Comments, which the Commission would consider in its final decision.

7. Initial Comments on Staff's Proposed Order were filed by the Office of the People's Counsel ("OPC"), District Department of Energy and Environment ("DOEE"), Potomac Electric Power Company ("Pepco"), Washington Gas Light Company ("WGL"), the Apartment and Office Building Association of Metropolitan Washington ("AOBA"), Advanced Energy Management Alliance ("AEMA"), DC Climate Action, Grid 2.0 Working Group ("Grid 2.0"), DC Consumer Utility Board ("DCCUB"), and DC Chapter of Sierra Club ("Sierra Club"), Solar United Neighbors of D.C. ("DCSUN") and Pace Energy and Climate Center ("PACE"), Edison Electric Institute ("EEI"), Energy Storage Association ("ESA"), Fluence, GridWise Alliance ("GridWise"), Oracle, PJM Interconnection, LLC ("PJM"), and Uplight Company. [5]

8. Reply Comments were filed by DOEE, Pepco, DCCUB/Sierra Club/Grid2.0, and DCSUN/PACE. [6]

9. Because this Order only renders decisions on the 11 topics identified above, our discussion of the comments filed on the Staff Proposed Order will be limited to comments that address these topics.

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[5] *Formal Case No. 1130*, Office of the People's Counsel's Comments ; District of Columbia Department of Energy and Environment's Comments ("DOEE's Comments"); Potomac Electric Power Company's Comments ("Pepco's Comments");Washington Gas Light Company's Comments ("WGL's Comments"); Apartment and Office Building Association of Metropolitan Washington's Comments ("AOBA's Comments"); Advanced Energy Management Alliance's Comments; DC Climate Action's Comments; Solar United Neighbors of D.C. and Pace Energy and Climate Center's Comments; Edison Electric Institute's Comments, ("EEI's Comments"); Energy Storage Association's Comments; Fluence Energy's Comments; GridWise Alliance Comments ("GridWise Alliance's Comments"); Oracle's Comments; PJM Interconnection, LLC's Comments ("PJM Interconnection's Comments"); and Uplight's Comments. All the Comments were filed on September 16, 2019.

[6] *Formal Case No. 1130*, District of Columbia Department of Energy and Environment's Comments ("DOEE's Reply Comments"); Potomac Electric Power Company's Reply Comments ("Pepco's Reply Comments"); and Grid 2.0 Working Group, DC Consumer Utility Board and DC Chapter of Sierra Club's Comments ("DCCUB/Sierra Club/Grid2.0's Reply Comments"); all filed on October 1, 2019. Solar United Neighbors of D.C. and Pace Energy and Climate Center's Reply Comments were filed on October 2, 2019. DCCUB/Sierra Club/Grid2.0 filed Corrected Reply Comments on October 4, 2019.

III. DISCUSSION

A. Customer Impact Working Group

(1) CIWG (R-5.4.3): Commission to Work with Pepco to Enhance Customer Data Access and Protection

i. Working Group Recommendation, Staff Order Recommendation

10. In the Final WG Report, the Customer Impact Working Group ("CIWG") recommended that the Commission work with Pepco to enhance customer data access and protection by directing Pepco to proceed with investigating the implementation of the Green Button Connect My Data functionality ("GBCMD") in accordance with connect my data ("CMD") standards established by the Green Button Alliance.[7] The CIWG also recommended that the Commission review Pepco's existing data security standards for adequacy against the CMD standard and that the Commission ensure that third-parties seeking access to customer data via an electronic interface with Pepco adhere to Pepco's cybersecurity standards for protection of this data.[8] The CIWG also recommends that the Commission: (1) audit third parties' systems and processes to ensure compliance with these standards; (2) ensure utilities and energy service providers develop policies and practices to address the integrity and confidentiality of customer data; and (3) ensure the information security of all interfaces, devices and operations involving customer data sharing including, but is not limited to, the following: (a) an opt-out data sharing policy for aggregated data to protect customer privacy and personally identifiable information ("PII"), and (b) an opt-in customer data sharing agreement for PII data.[9]

11. Generally, stakeholders support this recommendation with some clarifications. For example, Arcadia Power notes that "Pepco should implement the entire Green Button Connect Platform, including the 'retail customer' scheme that includes customer and billing information" and "ensure third parties seeking access to customer data via an electronic interface with Pepco adhere to Pepco's cybersecurity standards."[10] Grid 2.0, DCCUB, and Sierra Club note that "Greenhouse gas [ ] generation metrics [should] be included so that D.C. customers can understand their utility GHG footprint, and allow them to compare and control their GHG emissions."[11] DOEE notes that "aggregated and anonymized ('A&A') customer data should be useful in identifying [energy efficiency ('EE') and distributed resource ('DR')] and other energy service

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7 Final Working Group Report at 146.

8 Final Working Group Report at 146.

9 Final Working Group Report at 146.

10 Final Working Group Report at 146.

11 Final Working Group Report at 148.

opportunities."[12] Pepco notes that the Commission should "consider directing Pepco to execute [nondisclosure agreements ('NDA')] with [ ] third parties in order to give the Commission insight into and confidence regarding third-party security and privacy standards and practices," while warning that the "NDA would in no way transfer to Pepco responsibility for a violation by or breach of a third party."[13]

12. After reviewing the Final Working Group recommendations, the Commission Staff proposed that the Commission grant the CIWG's recommendation because, similar to commercial customers, giving residential customers access to their energy usage data in a standardized, consumer-friendly, and computer-friendly format, so that they can choose which service providers to share their data, supports innovation and encourages better use of customers' energy usage data made available by Advanced Metering Infrastructure technology.[14] Staff also supported this recommendation because it could facilitate greater usage awareness, DER penetration, and maximize benefits to all ratepayers.[15] Therefore, Staff recommended that the Commission direct Pepco to report on the implementation of the Green Button Connect My Data and related customer data matters, including Pepco's data aggregation sharing practices, data anonymization feasibility, and the feasibility of including greenhouse gas ("GHG") emissions data through the CMD platform.[16] Staff also proposed that the Commission deny the recommendation that the Commission audit third parties' systems and processes to ensure compliance with Pepco's cybersecurity standards as this is a responsibility of the utility. Instead, Pepco should execute NDAs with third parties for assurances on security and privacy standards.[17] Lastly, Staff proposed that the Commission also agree with the recommendation from Arcadia Power that Pepco should implement the entire Green Button Connect platform for residential customers and include this consideration in the reporting requirement.[18]

ii. Stakeholder Comments to Staff Order

13. Gridwise Alliance filed comments noting that "the proposed directive ordering Pepco to investigate promptly making Green Button Connect My Data available," will allow Pepco, as an Exelon utility, and a part of the single largest electric utility family in the nation, to have "a single solution for making Green Button Connect

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12 Final Working Group Report at 148.

13 Final Working Group Report at 149.

14 Staff Proposed Order No. 19984, ¶ 76.

15 Staff Proposed Order No. 19984, ¶ 76.

16 Staff Proposed Order No. 19984, ¶ 76.

17 Staff Proposed Order No. 19984, ¶ 76.

18 Staff Proposed Order No. 19984, ¶ 76.

My Data available across Exelon's 10 million customers" which "DC residents will benefit from the attention of national application providers."[19]

14. Pepco filed comments noting support for the proposal, stating that "the timeline proposed by the Commission aligns with Exelon's enterprise-wide plan to implement a fully certified GBCMD, which will minimize costs to District customers and provide third-party data aggregators with a standardized product."[20] Pepco also notes that if they are "required to implement GBCMD in advance of the enterprise-wide implementation, all of the costs of implementing GBCMD would be borne by District customers instead of being allocated among all the Exelon Utilities."[21]

15. DOEE filed reply comments to Pepco's comment noting "regardless of the timeline of implementation, District of Columbia ratepayers, as a small portion of ratepayers in the Exelon footprint, should not be penalized vis-a-vis non-District ratepayers for its leadership in meeting the District's climate and energy goals."[22]

iii. Commission Decision

16. The Commission agrees with Staff's recommendation to direct Pepco to examine the feasibility of implementing Pepco's "Green Button Connect My Data", as referenced in Paragraph 12, *supra*, to encourage better use of customers' energy usage data between Pepco and third-party service providers. The Commission rejects the CIWG's recommendation that the Commission audit third parties' systems and processes to ensure compliance with Pepco's cybersecurity standards as this is a responsibility of the utility. We agree with the Staff Order that Pepco should execute NDAs with third parties for assurances on security and privacy standards. The Commission also agrees with the recommendation from Arcadia Power that Pepco should implement the entire Green Button Connect platform for residential customers and include this consideration in the reporting requirement. The Commission commends Exelon's plan to implement GBCMD across its full system. To better understand the timeline of Exelon's implementation plan of GBCMD, Pepco is directed to provide a feasibility report for implementing GBCMD in the District within 90 days from the date of this Order as outlined in Appendix B and include in the report the timeline of Exelon's systemwide GBCMD plan.

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19 Gridwise Alliance's Comments at 2.

20 Pepco's Comments at 25.

21 Pepco's Comments at 25.

22 DOEE's Reply Comments at 10.

B. Non-wires Alternatives Working Group

(1) NWAWG (L-5.2.5): Stakeholder Input on Commission Rules Around DER Ownership

i. Working Group Recommendation, Staff Order Recommendation

17. Learning 5.2.5 in the Final Working Group Report is from the Non-wires Alternatives Working Group ("NWAWG") regarding "Stakeholder Input on Commission Rules Around DER Ownership Rules." The first NWA Learning proposed by the NWAWG was that stakeholders should have input on Commission rules regarding ownership of DERs.[23] The Commission previously determined that the issue of utility ownership of storage fell outside the scope of *Formal Case No. 1050* (interconnection standards) and directed the NWAWG to consider utility ownership of energy storage devices and other DERs and to submit its recommendation for Commission consideration in the Final Working Group Report.[24]

18. In response to the Commission's request to develop rules around ownership of DERs, the NWAWG recommended that the Commission consider the stakeholders' input on energy storage classification, energy storage operation in the wholesale market, energy storage ownership and control, solar PV ownership and ownership of additional DERs.[25]

19. There was general agreement amongst the stakeholders that the Commission should classify energy storage by its primary function and regulate it accordingly and that utilities should be allowed to, among other things: (1) operate energy storage assets in wholesale markets; (2) own front-of-the-meter energy storage assets for providing grid reliability services; (3) control energy storage assets behind-the-meter if they are to be used as a grid reliability asset and only if customers and third-party providers consent to such control; and (4) own solar PV, wind, biomass, waste-to-energy, cogeneration and/or micro turbine assets as long as it is not for the purposes of selling retail electricity to customers. On the other hand, there was also general agreement amongst the stakeholders that utilities should <u>not</u> be allowed to own storage assets behind-the-meter at this time.[26]

20. Notwithstanding the general agreement on the above list, most stakeholders also took varying positions favoring this Learning with a multitude of

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[23] Final Working Group Report at 105-113.

[24] *RM40-2020-01, In the Matter of 15 DCMR Chapter 40 — District of Columbia Small Generator Interconnection Rules* and *Formal Case No. 1050, In the Matter of the Investigation of Implementation of Interconnection Standards in the District of Columbia*, Order No. 19676, ¶ 17, rel. September 19, 2018.

[25] Final Working Group Report at 108.

[26] Final Working Group Report at 108-109.

conditions, modifications, or objections.[27] As a result of these varying views, the Staff Order proposed that this matter was ripe for initiation of a notice of inquiry ("NOI") to address ownership of energy storage devices and other DERs by setting out the recommendations from the Final WG Report, with appropriate modifications, and asking for public comment. The Proposed Order directed Commission Staff to issue a conforming NOI within 90 days, and the Commission could then issue a Notice of Proposed Rulemaking ("NOPR") based on the comments received in response to the NOI.[28]

ii. Comments to Staff Order

21. EEI feels strongly that the Commission should affirm DER ownership by utilities – a decision that would support existing DC law. It believes that an NOI on the matter would delay a chief objective of MEDSIS (n/k/a PowerPath DC): further deployment of DER. EEI states that, as was discussed within the working group and agreed upon in other jurisdictions such as New York and Massachusetts, utility ownership of DERs – including storage – is an efficient and cost-effective way to ensure greater DER deployment, especially for low-income customers.[29]

22. The DCCUB, Sierra Club, and GRID2.0 comment that the "5.2.5 Learning" is "all focused on the extension of ownership, control and operation of new DER assets by the utility (extension of the current utility monopoly) and does not raise any question concerning the need to re-evaluate the economic justification for the 'natural monopoly' underpinning the current legacy regulatory compact, no less the need to assess the implications of extending utility ownership, control and operation of DER assets on competition and to weigh the pros and cons of 'turning back' the objectives that motivated 'restructuring' the electricity marketplace."[30]

23. DOEE asks the Commission to modify the NOI to address storage ownership only. DOEE claims that storage represents a special case due to its multiple functions including as both generation and load. DOEE also asserts that other distributed DER solutions are strictly generation assets, and as such, the Commission does not have authority under existing statute to grant ownership of generating assets to the electric utility.[31]

24. In its Reply Comments, Pepco acknowledges that its Initial Comments did not address Proposed Directive 5.2.5 to initiate an NOI process to gather information

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27 Final Working Group Report at 109-113.

28 Staff Proposed Order No. 19984, ¶ 54.

29 EEI's Comments at 2.

30 DCCUB/Sierra Club/Grid2.0's Reply Comments at 4.

31 DOEE's Comments at 8.

regarding the ownership of DERs because current District law allows for utility ownership of generation for purposes other than retail sale. However, in response to DOEE's request that the scope of this NOI process be reduced to just discussing storage ownership, Pepco supports the proposed directive as it was presented in the Proposed Order as applying to all DERs.[32] Pepco states that to date, it has limited its ownership of DERs in the District to installing solar and batteries on-site to reduce the carbon impact associated with the operation of substations. However, in light of the growing interest in the District in the possible role of DERs as NWAs to address grid capacity needs, Pepco submits that it is actively considering solar, storage, and other DERs as means to defer or replace traditional system capacity investments. Pepco stated that given its charge to deliver electricity both reliably and affordably, it is imperative that the utility not only have the opportunity to control but also to own DERs as NWAs if utility ownership of the NWA is found to be the most economic means by which to reliably address a system need.[33]

25. Pepco also disagrees with DOEE's suggestion that the NOI process set forth in this proposed directive be limited to a discussion of storage, asserting, "[i]f the current District law regarding utility ownership of DERs for non-retail-sale purposes merits discussion, that discussion should encompass all DERs as did the Commission's instructions to the PowerPath DC working groups."[34]

iii. Commission Decision

26. We have carefully reviewed and evaluated the pros and cons raised in the above-referenced Comments and have concluded that the recommendations of the NWAWG and proposed directives in the Staff Order present the appropriate path to take on this issue. We do not believe that an NOI proceeding would unreasonably delay deployment of DER. Besides, it is more important to get it right first than to rush into such deployment without further consideration of the issues. An NOI will allow both DOEE and Pepco to support their differing positions so that we can make an informed decision. We would expect commenters to discuss not only storage, but other DERs as well. We also expect the commenters to discuss and consider both Pepco and WGL and their affiliates' roles in the ownership models.

27. Thus, as the Commission continues to investigate the use of DERs,[35] we agree with Staff and direct Staff to issue an NOI, within 60 days from the date of this Order, to investigate issues related to the classification of energy storage, energy storage operation in the wholesale market, ownership of energy storage, behind-the-meter energy

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[32] Pepco's Reply Comments at 20.

[33] Pepco's Reply Comments at 20-21.

[34] Pepco's Reply Comments at 21.

[35] In terms of demand response, we note that Pepco has a Direct Load Control Program providing around 18 MWs of peak load reduction. In addition, the third-party providers also provide 70-80 MWs of demand response in District of Columbia.

storage control, solar PV ownership, and other DERs such as demand response as the District moves forward with modernization of the grid.

C. Data and Information Access and Alignment Working Group

(1) DIAAWG (R-5.1.5): Commission to Revise Language in MEDSIS Vision Statement

i. Working Group Recommendation, Staff Order Recommendation, Comments to Staff Order

28. In the Final WG Report, the DIAA Working Group proposed that the Commission revise language in the PowerPath DC Vision Statement to update the language to the term "Affordable" in Section A.4 of the MEDSIS Vision Statement and Guiding Principles to reflect its applicability to both electric and natural gas utilities.[36] More specifically, the DIAAWG proposed three changes: (1) that the Commission recognize that rapid technological change increases the danger of "stranded assets" (capital investments that turn out to be unneeded); (2) that the electric and gas utilities undertake holistic planning approaches that fully examine technological options that can be deployed to meet policy objectives and customer expectations for continued system reliability and affordability; and (3) that the Commission expects DERs to be able to stand on their own without subsidies from ratepayers.[37]

29. All stakeholders agreed with the recommendation with a few suggested clarifications. DOEE, while it supports the recommendation, notes that "although DER should be market competitive, DC government still may need to incentivize fuel switching in order to counteract the current low price of natural gas to support its climate change goals."[38] DC SUN notes that it "supports the original MEDSIS Vision Statement wording, from which the recommendation deletes the phrase at the end, 'and considered in connection with the benefits and efficiencies such DER may bring to the distribution system.'"[39] Sunrun, Inc. ("Sunrun") opposes the recommendation disputing the "assumption in Proposed Change #3 that electric and natural gas distribution ratepayers subsidize DERs."[40]

30. Commission Staff recommended that the Commission approve and adopt the proposed changes, with slight modifications. No comments were submitted related to this recommendation.

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[36] Final Working Group Report at 66.

[37] Final Working Group Report at 66.

[38] Final Working Group Report at 67.

[39] Final Working Group Report at 67.

[40] Final Working Group Report at 68.

ii. Commission Decision

31. The Commission agrees with Staff's recommendation and adopts Staff's revised MEDSIS Vision Statement as reflected in Appendix C of this Order.

(2) DIAAWG (R-5.1.6): Commission to Develop Publicly Available System-Level Data Webpage

i. Working Group Recommendation, Staff Order Recommendation

32. The DIAAWG recommended that the Commission should consider hosting and maintaining an online bibliography that allows access to publicly available system-level data in the District, and that this webpage should contain links to mapping, interconnection queues, and other public documents where system-level data in the District resides. The DIAAWG proposed that: Pepco should continue to be responsible for updating and maintaining the source of the data; the Commission should ensure that the data is properly linked and easily viewable and accessible via the website; and any costs associated with developing the system-level data online bibliography should come out of the MEDSIS Pilot Fund. The DIAAWG also recommended that any non-public, location-specific system-level data can, when appropriate, be made available through a Pepco-implemented secured web portal and NDA process outlined in Recommendation 5.1.8.[41]

33. Given the fact that Pepco already has a publicly available web portal containing its system-level data, the Staff Order stated that it was not necessary to develop a new webpage to house such information. Instead, it recommended that the Commission accept a modification of the proposal by providing a link on the Commission's website for access to Pepco's web portal. The Staff Order acknowledged that not all system-level data being requested by stakeholders is readily available on Pepco's web portal. For instance, some data is contained in Pepco's Annual Consolidated Report ("ACR"). The Proposed Order, therefore, directed Pepco to review the DIAAWG Recommendation 5.1.6 and update its website to facilitate data availability, including adding requested data from the ACR to its website and to file a report with the Commission within 60 days of the date of the Order detailing what data has been added, what data will be added and in what timeframe, and justifying any deviations from the DIAAWG's recommendations.[42]

34. In response to requests that WGL's system-level information be made available as well, the Staff Order proposed that WGL be directed to create a similar portal for its publicly available system-level data and to confirm the portal's creation by filing a statement of compliance within 60 days of the date of the Order.[43]

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41 Final Working Group Report at 69.

42 Staff Proposed Order No. 19984, ¶¶ 25, 115.

43 Staff Proposed Order No. 19984, ¶¶ 26, 115.

ii. Comments to Staff Order

35. Pepco supports the proposed directive and commits to working with Commission Staff to implement the final directive.[44] On the other hand, WGL states that it does not currently provide a portal for accessing system-level data for many reasons, including security concerns, and because system demands change constantly based on known growth, proposed growth, and considered capacity enhancements. WGL requests that it not be required to provide system-level data through an electronic portal. Rather, Pepco recommends a different, more accurate process for accessing system-level data as described in the next paragraph.

36. According to WGL, its system capacity and capabilities are dynamic, and typically it receives simultaneous requests for load increasing and capacity enhancements to its system, some of which can be substantial. WGL further comments that modeling the capacity of the system, or any piece of the system, requires a thorough understanding of system dynamics and design day requirements. Thus, WGL asserts, to manage and maintain the safe and reliable operation of its system, while also being responsive to customer system-level data requests, it is critical that it is contacted directly by customers or developers with detailed information regarding proposed projects, including specific locations with realistic and accurate customer load requirements. Even with the best information made available, WGL claims that it is highly unlikely that any third party will be able to accurately determine the capacity available at any point in the system. Therefore, WGL submits that this process and information is necessary for it to provide a reasonable assessment of system capacity and capabilities to reliably serve new or incremental firm load that an electronic portal cannot provide.[45]

37. WGL commits to work with interested parties to establish a process whereby an approved customer, builder or developer will be able to obtain required system-level data that meets their requirements within an agreed-upon number of days from their initial request. If approved, WGL states that it will not be able to have this new process in place within 120 days of the Commission's order. In addition, WGL shall file annually, a report on the new process including, but not limited to details on: (a) how many requests for data were received; (b) how many of those requests were granted, denied, or withdrawn; (c) the average response time to provide the requested data; (d) a list identifying the organizations that requested data, and (e) the costs incurred for the provision of data, including costs paid by the requestor for customized data.[46]

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[44] Pepco's Comments at 10.

[45] WGL's Comments at 2-3.

[46] WGL's Comments at 3.

iii. Commission Decision

38. While Pepco supports the directives in the Staff Order, WGL does not. WGL states that it does not currently provide a portal for accessing system-level data for many reasons, including security concerns, and because system demands change constantly based on known growth, proposed growth, and considered capacity enhancements. As a result, WGL requests that it not be required to provide system-level data through an electronic portal, but instead requests the Commission to approve a different, more accurate process for accessing system-level data, as detailed in paragraphs 36 and 37 above.

39. The Staff Proposed Order directed both Pepco and WGL to review DIAAWG Recommendation 5.1.6 and thereafter update its website to facilitate data availability. However, the Proposed Order also directed WGL to file a statement within 60 days from the date of the Order indicating that it has updated its website to provide the portal described in DIAAWG recommendation 5.1.6 or provide an explanation of either why the update has not yet occurred or why WGL believes this portal is unnecessary or infeasible, in accordance with Paragraph 26 of that Order.

40. As set forth in Paragraphs 36 and 37 above, WGL essentially provided the explanation requested in Paragraph 115(b) of the Staff Proposed Order in its Comments to the Proposed Order here as to why WGL believes this portal is unnecessary or infeasible. Asserting that managing and maintaining the safe and reliable operation of its system, while also being responsive to customer system-level data requests, it is critical that WGL be contacted directly by customers or developers with detailed information regarding proposed projects, including specific locations with realistic and accurate customer load requirements. Therefore, WGL submits that this process and information is necessary for it to provide a reasonable assessment of system capacity and capabilities to reliably serve new or incremental firm load that an electronic portal cannot provide.[47]

41. In lieu of providing system-level data through an electronic portal, WGL commits to work with interested parties to establish a process whereby an approved customer, builder or developer will be able to obtain required system-level data that meets their requirements within an agreed-upon number of days from their initial request. In addition, WGL commits to file an annual report on the new process which would include the details referenced in Paragraph 37 above.[48]

42. We are persuaded by WGL's explanation as to why a webpage hosting publicly available natural gas system-level data would not be sufficient to provide the system-level data required, and we have given serious consideration to WGL's request to provide an alternative process for providing that system-level data. Recognizing that one plan does not fit all, along with the fact that no other commenter replied or objected to

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47 WGL's Comments at 2-3.

48 WGL's Comments at 3.

WGL's proposed alternative, and the fact that WGL filed on May 26, 2020, a report that it has developed a secure web portal,[49] which WGL may use to facilitate WGL's alternative process, the Commission is of the opinion that WGL's alternative plan is reasonable and workable, and with appropriate reporting requirements, the Commission can keep an eye on the process to ensure that it achieves the purposes for which it is intended.

43. In accordance with the above, we will direct Pepco to provide system-level data through its electronic portal as per Paragraph 115(a) and (c) in the Staff Order and will direct WGL to provide that data as set forth in its commitment in its Comments. Both will be set out in more detail in Ordering Paragraphs 91-92 below.

44. The Commission agrees with the conclusions and directives in the Staff Proposed Order, set out in paragraph 115 of that Order, with slight modifications, as set out in paragraphs 91 and 92 of this Order, that both Pepco and WGL review DIAAWG Recommendation 5.1.6 and thereafter update their websites to facilitate data availability to make sure that it is easily accessible by third-party providers and visible on a webpage in order to make modernization of the grid transparent.

Decisions on the following seven (7) Recommendations/Learnings are currently linked to other Commission proceedings or Pepco has already decided to act on the recommendation.

D. Data and Information Access and Alignment Working Group

(1) DIAAWG (R-5.1.3): Commission to Align MEDSIS with Clean Energy DC Act

i. Working Group Recommendation, Staff Order Recommendation

45. To advance a sustainable energy delivery system, the DIAAWG recommended that all Commission projects, programs, and initiative decision-making should align with provisions of the Clean Energy DC Act. The Commission provided an overview of the Clean Energy DC Act's Commission-specific directives in Appendix A of the Staff Proposed Order (Order No. 19984).

46. This recommendation was overwhelmingly supported by all stakeholders with DOEE and WGL Energy noting that the Commission should "issue a new set of regulations" and "rules" to comply with the new law. The Staff Order accepted this recommendation and noted that the Commission had already begun the process of

[49] *Formal Case No. 1130*, Washington Gas Light Company's Report on the Status of Implementing a Secure Web Portal, filed March 26, 2020.

implementing the requirements of the Act, as well as aligning the Commission's decisions with the directives and overall goals of the legislation.[50]

47. The Staff Order recognized that the MEDSIS Vision Statement and Guiding Principles encompass the requirement that any project or proposal submitted for approval to the Commission should be, among other things, sustainable – factoring in environmental protections and the District's clean energy goals. However, in order to clarify the alignment between the applicability of the MEDSIS Vision Statement and the Clean Energy DC Act, as discussed further in the proposed decision in Recommendation 5.1.9, the Staff Order recommended that the Commission direct proponents of any proposal for Commission approval to explain how the proposal comports with and advances the MEDSIS Vision, including the proposals' effects on global climate change and the District's public climate commitments.

ii. Comments to Staff Order

48. Pepco supports the proposed directive that proponents of proposals submitted for Commission approval must explain how the proposal comports with and advances the PowerPath DC vision and aligns with Clean Energy DC Act goals. However, Pepco notes that there are often tradeoffs between the PowerPath DC Guiding Principles. For instance, a PowerPath DC recommendation that increases access to utility data scored strongly on the "interactive" Guiding Principle but poorly on the "secure" Guiding Principle. Pepco states that these tradeoffs are inherent to many PowerPath DC recommendations and will be evident in many proposals that come before the Commission and should be considered on a case-by-case basis.[51]

iii. Commission Decision

49. In addition to the examples cited in Paragraph 15 of the Staff Proposed Order relating to the Commission's efforts in implementing the requirements of the Act and aligning the Commission's decisions with the directives and overall goals of the Clean Energy DC Act in other proceedings, the Commission also initiated an NOI on September 26, 2019,[52] following issuance of the Staff Order, inviting public comment[53] on the analytical approach that it should take when considering the effects of a utility proposal on global climate change and the District's public policy commitments,

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[50] Staff Proposed Order No. 19984, ¶ 15.

[51] Pepco's Comments at 8-9.

[52] *GD2019-04-M, In the Matter of the Implementation of the 2019 CleanEnergy DC Omnibus Act Compliance Requirements ("GD2019-04-M")*, Notice of Inquiry, rel. September 26, 2019 ("NOI").

[53] On October 2, 2019, Solar United Neighbors of D.C. and Pace Energy and Climate Center filed a Motion to File Reply Comments out of Time, which was granted by the Commission. In addition, several parties requested an extension of time to file comments, which was also granted. Thus, the last set of comments were not filed until January 13, 2020.

including whether specific GHG emissions reporting requirements, metrics for GHG emissions reduction, and carbon footprint metrics should be used. The Commission solicits descriptions on what measurements and verification metrics could be designed to help it assess compliance with the Clean Energy DC Act. The goal of seeking stakeholder input to further develop this framework is to provide a higher level of regulatory certainty and transparency into the decision-making process."[54]

50. Following the filing of public comments, the Commission scheduled two Technical Conferences designating the following initial subject matters for discussion: (a) requirements of an analytical framework for consideration of the effects of a utility proposal on global climate change and the District's public policy commitments, including whether metrics for GHG emissions reductions and carbon footprint metrics should be used; (b) cost-benefit analyses considering climate commitment; (c) carbon pricing; and (d) best practice for utility reporting requirements or rules to track gas and electric utilities' compliance with clean energy goals.

51. Additional technical conferences are scheduled with the participation of many associations, organizations, government agencies, Pepco, WGL, and individuals forming the Clean Energy Act Implementation Working Group.[55]

52. The Commission will continue to explore and adopt appropriate procedures to advance a sustainable energy delivery system and ensure that all Commission projects, programs, and initiative decision-making aligns with provisions of the Clean Energy DC Act. We also believe it to be crucial that, as proposed in the Staff Order, proponents of any proposal for Commission approval shall explain how the proposal comports with and advances the MEDSIS/PowerPath DC Vision, including the proposals' effects on global climate change and the District's public climate commitments, in accordance with that Order and this Order. Thus, the Commission reaffirms the Staff Proposed Order on this issue, and in recognizing the caveat issued by Pepco that there are tradeoffs inherent to many PowerPath DC recommendations/proposals that will come before the Commission, we will be vigilant in considering any tradeoffs on a case-by-case basis.

(2) DIAAWG (R-5.1.4): Commission to Continue to Improve Small Generator Interconnection Process

i. Working Group Recommendation, Staff Order Recommendation

53. The DIAAWG recommended that "the DCPSC [ ] give oversight to Pepco to continue to improve its Small Generator Interconnection Process to facilitate DER deployment in the District."[56] The DIAAWG noted that their intent during

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54 *GD2019-04-M*, NOI at 2.

55 *See* Commission Docket No. *GD2019-04-M*.

56 Final Working Group Report at 64.

discussions was to continue to evolve the small generator interconnection process and create revenue mechanisms that reward or penalize Pepco for increased efficiency in the interconnection process.[57] Further, the DIAAWG took notice of several recent Commission actions to improve the interconnection process in *Formal Case No. 1050.*[58] All stakeholders generally supported this recommendation with several proposing some changes to focus on specific objectives.[59]

54. The Staff Proposed Order recommended Commission approval of this DIAAWG recommendation and to acknowledge the progress Pepco has made in improving its interconnection processing timelines. The Staff Proposed Order also emphasized the Commission's commitment to continue to review issues related to interconnection in *Formal Case No. 1050*. Order No. 19984 reiterated that the Commission recently finalized small generator interconnection rules that include aggressive interconnection timelines and compliance with the IEEE 1547-2018 Standard, which requires DERs to be capable of providing grid supportive functionalities relating to voltage, frequency, community, and controls. The Staff Order also pointed out that the Commission is currently working with stakeholders on community renewable energy facility ("CREF") rules and other rules as DER projects are implemented. The Staff Proposed Order also recommended that the Commission direct Commission Staff, as mentioned in Recommendation 5.2.7, to lead educational workshops in *Formal Case No. 1050* to inform stakeholders and solicit their input on IEEE updates and any other applicable industry advancements, with the first educational workshop to be scheduled and held within 120 days from the date of the Order.

ii. Comments to Staff Order

55. Pepco supports Staff's proposal. Pepco also stated its commitment to providing information and updates regarding the deployment of advanced inverters on its system and its impact on hosting capacity and the cost of interconnection.[60]

56. DOEE commented that the current regulatory framework is hampering the ability to install DER and back-up power systems such as solar and storage.[61] As part of

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57 Final Working Group Report at 64.

58 The Commission issued a Notice of Final Rulemaking in January 2019 addressing best practices of interconnection for small generators (less than 20MW) over time and amendments to IEEE 1547.

59 Final Working Group Report at 65-66.

60 Pepco's Comments at 9.

61 DOEE's Comments at 12.

its roadmap discussion, DOEE proposed to streamline the interconnection of DERs by "requiring automated interconnection for boilerplate NEM and CREF PV systems."[62]

57. Pepco took issue with DOEE's statements, and in response to DOEE's comment that the current interconnection and tariff frameworks are hampering the ability to install DER, Pepco stated that it regularly reports to the Commission about the volume of interconnection requests received and processed. As for DOEE's proposal to streamline the interconnection of DERs by requiring automated interconnection for boilerplate Net Energy Metering and CREF PV systems, Pepco stated that it already has a streamlined interconnection process for small generators below 50kW or when the DER capacity on the secondary network is less than 5% of the peak load. However, Pepco points out that, due to the complexities of the electric distribution system, some human review and judgment is required in the process to ensure system reliability and public safety. Pepco asserts that it is critical to recognize that hundreds of new DER devices on the Pepco electric distribution system that could result in multi-directional power flows cannot simply be automatically connected, and Pepco must continue to evaluate how these devices impact system reliability, stability, and safety.[63]

iii. Commission Decision

58. There have not been any arguments made to persuade us that we are not currently giving appropriate oversight to Pepco's efforts to continue to improve its Small Generator Interconnection Process to facilitate DER deployment in the District. We convened meetings of the *Formal Case No.1050/RM40* Working Group and just issued a NOPR which includes a smart inverter definition and other improvements in the revised interconnection rules.[64] We note that the current *RM40* NOPR includes amendments dealing with revised interconnection processes, which we believe will help align the Commission's collective interconnection decisions. The Commission plans to continue seeking stakeholder input on community renewable energy facility rules and any further refinements to its interconnection rules with respect to storage facilities.

(3) DIAAWG (R-5.1.7): Commission to Direct Pepco to Update Hosting Capacity Maps on a Monthly Basis

i. Working Group Recommendation, Staff Order Recommendation

59. The DIAAWG recommended that the Commission direct Pepco to update hosting capacity maps on a monthly basis, noting that the frequency in which Pepco provided the updated information should be reviewed annually by the Commission.[65] In

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62 DOEE's Comments at 15.

63 Pepco's Reply Comments at 14.

64 67 *D.C. Reg.* 4042-4119 (April 10, 2020).

65 Final Working Group Report at 71.

addition to the broad support from stakeholders for this recommendation,[66] Pepco indicated that it already updates hosting capacity maps on a quarterly basis and can update it on a monthly basis.[67]

60. The Staff Order proposed that the Commission approve the recommendation and direct Pepco to begin updating the hosting capacity maps on its website on a monthly basis within 90 days from the date of the Order.

ii. Comments to Staff Order

61. GridWise commented that Pepco is considered a national leader in the quality of its hosting capacity maps and increasing the frequency of updating these maps from quarterly to monthly will offer important information to the District's DER developers and set an ambitious new target for utilities across the nation.[68]

62. Pepco supports this proposed directive to update its solar hosting capacity maps monthly and notes that it already implemented this procedure.[69]

63. DOEE comments that the update of the existing hosting capacity analysis ("HCA") map by Pepco from quarterly to monthly may not be sufficient to improve the granularity of, nor the accessibility of transparent hosting capacity information. DOEE submits that a useful HCA will include: (1) more frequent data updates, up to or including real-time hosting capacity; (2) technology-specific hosting capacity availability (e.g. solar, solar+storage); (3) downloadable data; and (4) a public map of interconnection queue at the feeder level. DOEE states further that the ideal outcome of an HCA and the accompanying map will be that it will expedite the processing of interconnection applications, as well as inform potential DER customers about whether or not there is sufficient hosting capacity available at the location where they plan to interconnect.

64. In response to DOEE's comments calling for the implementation of real-time hosting capacity, downloadable data and other cutting-edge HCA, Pepco refers to the 2018 report issued by the International Renewable Energy Council ("IREC") (to which DOEE itself cited) that offers the following advice: "Given the vanguard nature of this topic (HCA), regulators can and should seek to inform their efforts with lessons from the handful of states and utilities that have begun to prepare hosting capacity analyses. Over time the software, methods, and assumptions may become standardized, but in the early stages of HCA it is important that states conduct a thorough process to understand

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66 As was the case on almost all recommendations from the working groups, several stakeholders proposed tweaks to it, but still supported the recommendation in general.

67 Final Working Group Report at 71-72.

68 Gridwise Alliance's Comments at 2.

69 Pepco's Comments at 10.

and properly vet their rollout." Pepco states that it looks forward to offering the types of HCA functionality DOEE suggests at a time when, as the IREC notes, the software, methods, and assumptions have become standardized. However, given the resource intensity and risk associated with doing so at this "early stage," Pepco believes customer resources can be better spent to accelerate DER integration through other investments, such as installing advanced inverters and the related communications networks.[70]

iii. Commission Decision

65. Given the overwhelming support from stakeholders for this recommendation, and Pepco's statements that it already updates hosting capacity maps on a monthly basis, we will approve this recommendation and direct Pepco to begin updating the hosting capacity maps on its website on a monthly basis, to the extent it has not done so already, within 30 days from the date of the Order.

66. Concerning DOEE's request to include additional information in the HCA, we believe, as pointed out by Pepco and recommended by IREC, that doing so at this time is premature; that the appropriate time to do so is at the time the software, methods, and assumptions have become standardized. In the interim, we direct Pepco to file a report within 120 days, informing the Commission of the status of other software, methods and assumptions to improve the granularity and accessibility of transparent hosting capacity information. Additionally, we direct Pepco to provide an update in its annual interconnection report to be filed in *Formal Case No. 1050* with the Commission by March 31 each year beginning on March 31, 2021.

E. Non-wires Alternatives Working Group

(1) NWAWG (L-5.2.6): Need for demonstrating NWA projects in the District

i. Working Group Recommendation, Staff Order Recommendation

67. This Learning proposed by the NWAWG is the need for demonstrating NWA projects in the District.[71] The NWAWG stakeholders generally agreed that the contract mechanisms and earning structures of NWA projects should be tested and demonstrated through NWA pilot projects. Three potential pilot or demonstration projects were proposed.[72] The NWA pilot can test several key components of NWA projects

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70 Pepco's Reply Comments at 15.

71 Final Working Group Report at 113-117.

72 Final Working Group Report at 114. The proposed pilot projects were: (1) Grid 2.0/DCCUB's comprehensive NWA pilot project described in Appendix A.6.3 of the Final Working Group Report; (2) Urban Ingenuity/DOEE's solar saturation solution project described in Appendix A.6.5 of the Final Working Group Report; and (3) Sunrun's "Bring Your Own Device" (BYOD) pilot project described in Appendix A.6.6 of the Final Working Group Report.

including, but not limited to, demand-side management, aggregated solar PV and energy storage, advanced inverter functionalities, NWA business models and ownership structures, and appropriate NWA contract mechanisms.[73] The Staff Proposed Order agreed with the Working Group and concluded that there is a real opportunity in the District to explore NWA pilot and demonstration projects in the District.[74] The Proposed Order recommended that the Commission should include a NWA pilot in the non-exhaustive list of Pilot Project concepts in the Call of Papers as an outcome of the 5.6.2 Pilot Projects in accordance with Paragraphs 55 and 104 of the Proposed Order.[75]

ii. Comments to Staff Order

68. Pepco supports the proposed decision to include NWA pilot projects in the non-exhaustive list of PowerPath DC Pilot Project concepts for funding. Pepco intends to work with District of Columbia stakeholders to develop NWA demonstration projects outside the PowerPath DC Pilot Project funding system. Pepco believes these demonstration projects could result in NWAs being tested on its system as early as 2021-2022 and is actively seeking opportunities to test a variety of DER ownership and revenue and recovery models.[76]

69. DOEE commented that in the NWAWG, DOEE presented a potential project in which solar PV systems on about 200 residential rooftops would be aggregated and paired with a centralized *(i.e.* utility-owned) or distributed (customer-owned) battery storage, that can serve critical loads of the homes during an outage and generate revenues from energy, capacity, and ancillary markets that are available during normal grid conditions. DOEE stated that the islanded operations during an outage would be facilitated by a sectionalized radial feeder segment that serves these homes. DOEE believes that this pilot project would provide a great opportunity to demonstrate key concepts discussed in the working groups such as: (1) whether a feeder's hosting capacity can be expanded by using the full range of advanced inverter functionalities; (2) the possibility of creating a residential microgrid powered by solar and battery storage, using a utility-owned feeder as the backbone; and (3) the possibility of using aggregated DER to provide capacity and ancillary services to the distribution grid.[77]

70. In its Reply Comments, Pepco notes that it is in active discussions with DOEE regarding a proposal for a "potential project in which solar PV systems on about 200 residential rooftops ... paired with a centralized {i.e., utility-owned) or distributed {*i.e.*, customer-owned) battery storage, that can serve critical loads of the homes during

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73 Final Working Group Report at 115.

74 Staff Proposed Order No. 19984, ¶ 55; Final Working Group Report at 115.

75 Staff Proposed Order No. 19984, ¶ 121.

76 Pepco's Comments at 22.

77 DOEE's Comments at 21-22.

an outage" and support utility capacity needs as an NWA demonstration project. Pepco submits that this pilot project could potentially increase local solar hosting capacity without necessitating wires upgrades, while offering additional community resilience benefits and solving, at least in part or for some time, a burgeoning capacity challenge at this location.[78]

iii. Commission Decision

71. The Staff Proposed Order recommended that the Commission should include an NWA pilot in the non-exhaustive list of Pilot Project concepts in the Call of Papers as an outcome of the 5.6.2 Pilot Projects. We adopt that recommendation.

72. The Commission is also encouraged by, and very interested in, Pepco's plans to develop NWA demonstration projects outside the PowerPath DC Pilot Project funding system and by its active discussions with DOEE concerning a project to place solar PV systems on about 200 rooftops that can serve critical loads of homes during an outage and support utility capacity needs as an NWA demonstration project. To keep the Commission informed of these activities, we direct Pepco to inform the Commission in more detail of these proposed projects by filing a report with the Commission on the status of these projects within 90 days from the date of this Order. The report shall, at a minimum, include the following information: (1) What is the planned funding source of such possible NWA demonstration projects?; (2) What are the unique features such a demonstration project will provide to justify a program implemented outside the PowerPath DC Pilot funding system?; (3) A full discussion of the anticipated reliability/resilience benefits from such a demonstration project; (4) Whether Pepco plans to implement such a project in a constrained area?; and (5) Whether Pepco plans to include this in the first NWA selection process? Given Pepco has proceeded with the Distribution System Planning and Non-Wires Alternative process and hosted its first webinar on NWA/RFI in April 2020, such demonstration projects can participate in the NWA selection process.

(2) NWAWG (R-5.2.7): Commission Establish a Stakeholder Working Group Around IEEE 1547-2018 Standards and Advanced Inverter Deployment

i. Working Group Recommendation, Staff Order Recommendation

73. The NWAWG proposed that the Commission Establish a Stakeholder Working Group Around IEEE 1547-2018 Standards and Advanced Inverter Deployment.[79] More specifically, the NWAWG stated that the Commission should establish a stakeholder working group to plan the deployment of advanced inverters and

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78 Pepco's Reply Comments at 21.

79 Final Working Group Report at 117.

implementation of IEEE 1547-2018 as specified in DCCA's proposal in Appendix A.6.1 of the Working Group's Report.[80] The Staff Order proposed not to convene a working group to discuss the implementation of IEEE 1547-2018, as most aspects of its implementation are the responsibility of Pepco and the implementation of this standard will require extensive education of the different parties.[81] Commission Staff noted that the Commission recognizes that there is a significant difference between implementing the IEEE standard and developing the functionalities to incorporate the standards. These are decisions that must be made by the Commission and PJM. Thus, the need for technical expertise, plus the fact that the Commission currently mandates compliance with IEEE 1547-2018, makes the convening of a new working group on this matter unnecessary. As such, the Staff Order recommended that the Commission direct the use of educational workshops, which can be conducted live, via video or web conference within *Formal Case No. 1050* when appropriate, relative to the status and progress of the standards' implementation, to inform stakeholders of developments in the implementation of these standards.[82]

ii. Comments to Staff Order

74. PJM Interconnection commented that it "look[s] forward to continuing to work with the Commission to address the transition to smart inverters" to ensure that "[s]mart inverters that comply with IEEE Standard 1547-2018 are equipped with ride-through capability—that is, the ability to stay connected to the grid during brief disturbances. Ride through is necessary for reliable and cost-effective integration of large amounts of DER."[83] Gridwise Alliance commented noting its support holding workshops "to consider standards for advanced inverters" because "[a]cross the nation, utilities in jurisdictions with ambitious DER integration targets are increasingly considering the systematic deployment of advanced inverters to facilitate interconnection. This approach allows for the optimal deployment of inverters to advance societal goals while providing a more equitable approach to the imposition of some interconnection costs."[84]

75. On the other hand, DOEE disagrees that a "technical working group addressing the IEEE 1547-2018 standards is unnecessary" noting that "simply conducting educational workshops on this topic will not be sufficient to allow technical stakeholders to weigh in on the implementation of these standards, which are critical to expanding hosting capacity and interconnecting large amounts of DER to meet the District's climate goals. According to DOEE, a technical working group will be necessary to address hosting capacity considerations and could include experts from IEEE, National

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80 Final Working Group Report at 117.

81 Staff Proposed Order No. 19984, ¶ 58.

82 Staff Proposed Order No. 19984, ¶ 59.

83 Generally, PJM Interconnection's Comments.

84 GridWise Alliance's Comments at 2.

Renewable Energy Laboratory, DOE, DOEE, Electric Power Research Institute, and others..”[85] Additionally, DOEE states that “[m]ost jurisdictions addressing grid modernization are either in the process of implementing the IEEE 1547-2018 standards or are diligently working on how best to implement the IEEE 1547-2018 standards” therefore, DOEE requests that the Commission adopt and enforce a timeline for the implementation of the IEEE 1547-2018 standards[86] given the fact that impacts of advanced inverter capabilities on increased hosting capacity are already well established.[87]

76. In its comments, Pepco states that it supports Staff’s proposed directive and will provide information and updates regarding deployment of advanced inverters on its system and their impact on hosting capacity and the cost of interconnection.[88]

iii. Commission Decision

77. The Commission accepts Staff’s recommendation to hold an educational workshop within *Formal Case No. 1050* to discuss IEEE 1547-2018 Standards and Advanced Inverter Deployment. The Commission directs the Staff in conjunction with Pepco to hold educational workshops within 120 days from the date of this Order, which can be conducted live, via video, or web conference within *Formal Case No. 1050* when appropriate, relative to the status and progress of the standards’ implementation, to inform stakeholders of developments in the implementation of these standards. As mentioned in paragraph 58 above, the Commission also recently issued a Notice of Proposed Rulemaking in *RM40*, which includes the definition of “advance inverters” for stakeholder comments to include updated IEEE 1547-2018 Standards. Upon the completion of the educational workshop on IEEE 1547-2018 Standards, the Commission will consider the need for a technical conference or working group as deemed appropriate.

F. RATE DESIGN

(1) RDWG (R-5.3.3) – Performance-Based Regulation

i. Working Group Recommendation, Staff Order Recommendation

78. The Rate Design Working Group (“RDWG”) suggested that the Commission consider Performance-Based Regulation (“PBR”) in the District.[89] Given Pepco’s multiyear rate application, which incorporates PBR, filed for the Commission’s

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85 DOEE’s Comments at 9.

86 DOEE’s Comments at 9.

87 DOEE’s Reply Comments at 3.

88 Pepco’s Comments at 22-23.

89 Final Working Group Report at 129.

consideration in *Formal Case No. 1156*, the Staff Order proposed that consideration of this PBR Learning be moved into *Formal Case No. 1156* and any other related proceedings.[90]

ii. Comments to Staff Order

79. AOBA filed Comments noting that, "as the Commission considers performance based rate regulation, multi-year rate plans, and surcharges in lieu of traditional rate base regulation in order to facilitate the modernization of the electric grid and natural gas infrastructure in furtherance of public policy goals and objectives, modernization of the allocation of the revenue requirement among ratepayer classes in order to end the residential rate class negative rates of return must also be implemented and applied to every capital project and mandate for new goods and services approved by the Commission."[91] AOBA also noted that "as grid modernization and Pepco's multi-year rate plan and performance based rates are being considered in Formal Case No. 1156, the importance of Merger Commitment 46 to ensuring cost based sharing among ratepayer classes is best viewed in the Commission's own words from Formal Case No. 1103, Order No. 17424 at paragraphs 437 and 438."[92] In that Order, the Commission expressed its efforts to further reduce the negative rates of return of the residential class and subsidization of the cost of serving residential customers over an extended period of time has raised questions of equity in a system that seeks to align rates with cost causation.[93]

80. Pepco commented that it supports the Staff Order's proposed directive to leave "the consideration of performance-based regulation and performance incentive mechanisms to Formal Case No. 1156."[94] In its Comments, DOEE noted that it "supports moving away from a typical cost of service framework that incentivizes investments and expenditures towards a performance-based framework that aligns the priorities of energy utilities with the climate goals of the District. Therefore, [it] is open to considering tracking costs specifically for new activities that further grid modernization."[95]

81. GRID2.0/DCCUB/Sierra Club commented that the Staff Order "does not acknowledge the need for a new regulatory paradigm that would align utility financial

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90 Staff Proposed, Order No. 19984, ¶ 66.

91 AOBA's Comments at 10-11.

92 AOBA's Comments at 13.

93 *Formal Case No. 1103, In the Matter of the Application of the Potomac Electric Power Company for Authority to Increase Existing Retail Rates and Charges for Electric Distribution Service*, Order No. 17424, ¶¶ 437-438, rel. March 26, 2014.

94 Pepco's Comments at 24.

95 DOEE's Comments at 5.

interests with long-term customer value -- a regulatory paradigm that is performance and results-based, that can assimilate continuous change, and that fosters future technology innovation and improvement, tapping into the benefits and services of new resources and technologies, as well as leveraging conventional resources."[96]

iii. Commission Decision

82. The Commission agrees and accepts Staff's recommendation, and directs that discussion surrounding PBRs will continue to be handled in *Formal Case No. 1156* and any other related proceedings.[97]

G. CUSTOMER IMPACT WORKING GROUP

(1) CIWG (L5.4.7) - Opportunity for Resilience Hubs in the District

i. Working Group Recommendation, Staff Order Recommendation

83. The CIWG strongly suggested that the Commission explore the opportunity to have resilience hubs in the District based on a DOEE community engagement initiative in Ward 7.[98] "Resilience Hubs" was defined by DOEE in the Working Group as "government-designated community-serving facilities augmented to support residents and coordinate resource distribution and services before, during, or after a disruption."[99] DOEE noted that the key components of a hub include, for example, providing shelter and electricity during extreme events and maintaining a supply of needed resources including water, food, ice, and basic medical supplies.[100]

84. The Staff Proposed Order concluded that this learning is a promising idea that could be used to enhance the quality of life in low-income areas throughout the city, especially in times of crisis, as well as provide job training opportunities for District residents. The Staff Proposed Order also noted that, since DOEE had already begun actions around this initiative, the Commission should decline to pursue this Learning at this time and, instead, offer any assistance the Commission can provide to DOEE in this endeavor.[101]

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96 DCCUB/Sierra Club/ Grid2.0's Comments at 4.

97 PIMs associated with energy efficiency and demand response can be discussed in *Formal Case No. 1160* as well.

98 Final Working Group Report at 161.

99 Final Working Group Report at 163.

100 Final Working Group Report at 163.

101 Staff Proposed Order No. 19984, ¶ 88.

ii. Comments to Staff Order

85. Pepco supports this recommendation noting that it has "partnered with Jubilee Housing, New Partners Community Solar Corporation, and DOEE to launch the District's first affordable housing resiliency center."[102] Pepco states that the center will "consists of a 70.2 kilowatt (kw) rooftop solar array combined with battery storage to power an on-site Resiliency Center capable of powering a community space for three days during power outages - providing refrigeration for medication and perishables, lighting, outlets for charging cell phones and other communication devices, and a television" and that this will "channel the benefits of solar power and storage batteries to provide refuge to affordable housing residents during power outages."[103]

86. DOEE, in its reply, states that during the working group process, it had provided a definition for resilience hubs, and "given that definition and the ongoing stakeholder outreach conducted by DOEE, it is important to clarify that while a resilience hub may include a solar and storage component, this may not necessarily be the case. The selection of an electricity source or system for the hubs will be the result of community decision-making, not that of the District or other government entities. Conversely, any building with solar and storage or back-up power system cannot be designated as a resilience hub just because it has back-up power."[104]

iii. Commission Decision

87. The Commission commends Pepco and DOEE in their active participation in investigating resilience hubs to better serve District residents. Given stakeholders' interest in resilience hubs, the Commission appreciates the CIWG's recommendation and finds value in continuing the discussion surrounding resilience hubs. The Commission directs staff to continue to review this topic in a new microgrid proceeding to be opened at *Formal Case No. 1163*.

IV. CONCLUSION

88. The Commission affirms its commitment to address the District's mandate for a clean energy future by ensuring that the utilities we regulate act in accordance with the District's energy and climate change commitments that facilitate a reduction in the District's GHG emissions by 50% below 2006 levels by 2032, achieve carbon neutrality by 2050, reduce energy use by 50% by 2032, and increase the use of renewable energy to 100% of the supply by 2032.[105]

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[102] Pepco's Comments at 28.

[103] Pepco's Comments at 28.

[104] DOEE's Reply Comments at 11.

[105] Clean Energy DC: The District of Columbia Climate and Energy Plan, August 2018. Available at https://doee.dc.gov/cleanenergydc. *See* CleanEnergy DC Act.

89. This Order advances the PowerPath DC vision by taking a series of meaningful steps consistent with the guiding principles of PowerPath DC.

THEREFORE, IT IS ORDERED THAT:

90. The Commission **DIRECTS** Commission Staff to initiate a Notice of Inquiry within 60 days from the date of this Order to address ownership of energy storage devices and other DERs by setting out the recommendations from the Final WG Report, with appropriate modifications, and soliciting public comment, in accordance with Paragraphs 26 and 27 of this Order;

91. The Commission **DIRECTS** the Potomac Electric Power Company to review DIAAWG Recommendation 5.1.6 and thereafter update its website to facilitate data availability, consistent with this Recommendation:

(a) Pepco shall file a report with the Commission within 60 days from the date of this Order detailing what data has been added to its website as of that date, what data will be added thereafter, and in what timeframe(s) the data will be added; this report shall include a justification for any deviations from DIAAWG Recommendation 5.1.6, in accordance with Paragraph 25 of Order No. 19984; and

(b) Pepco shall include a link(s) to these portals in their respective 60-day filings so that the Commission can add this information to its website.

92. The Commission **DIRECTS** Washington Gas Light Company to work with interested parties to establish a process whereby an approved customer, builder or developer will be able to obtain required system-level data that meets their requirements within an agreed-upon number of days from their initial request; and

(a) WGL shall file its proposed process/plan for Commission approval within 30 days from the date of this Order including all details for implementation of the process and the required number of days to complete and have the new process in place;

(b) Upon Commission approval, WGL shall file annually, by March 31 of each year, a report on the new process including, but not limited to details on: (a) how many requests for data were received; (b) how many of those requests were granted, denied, or withdrawn; (c) the average response time to provide the requested data; (d) a list identifying the organizations that requested data, and (e) the costs incurred for the provision of data, including costs paid by the requestor for customized data.

93. The Commission **DIRECTS** Commission Staff, as stated in Recommendation 5.2.7, to lead educational workshops in *Formal Case No. 1050* to inform stakeholders and solicit their input on IEEE updates and any other applicable industry advancements, in accordance with Paragraph 77 of this Order; to evaluate the

current status of implementing IEEE standards; and to schedule an educational workshop within 120 days from the date of this Order;

94. In accordance with Paragraph 16 of this Order, the Commission **DIRECTS** the Potomac Electric Power Company to provide a feasibility report for implementing Green Button Connect My Data in the District within 90 days from the date of this Order as outlined in Appendix B and include in the report the timeline of Exelon's systemwide Green Button Connect My Data plan;

95. The Commission **ADOPTS** the recommendation in the Staff Proposed Order that an NWA pilot be included in the non-exhaustive list of Pilot Project concepts in the Call of Papers as an outcome of the 5.6.2 Pilot Projects as set forth in Paragraphs 55 and 104 of the Staff Proposed Order;

96. The Commission **DIRECTS** the Potomac Electric Power Company to inform the Commission of its proposed NWA projects by filing a report on the status of these projects and preliminary plan, if available, within 90 days from the date of this Order. The report shall, at a minimum, include the following information: (1) What is the planned funding source of such possible NWA demonstration projects?; (2) What are the unique features such demonstration project will provide to justify a program implemented outside the PowerPath DC Pilot funding system?; (3) A full discussion of the anticipated reliability/resilience benefits from such a demonstration project; (4) Whether Pepco plans to implement such a project in a constrained area?; and (5) Whether Pepco plans to include this into the first NWA selection process;

97. The Commission **DIRECTS** the Potomac Electric Power Company to begin updating the hosting capacity maps on its website on a monthly basis, within 30 days from the date of the Order, if it has not already done so**,** and in accordance with Paragraph 66 of this Order. The Commission further **DIRECTS** the Potomac Electric Power Company to file a report within 120 days, informing the Commission of the status of other software, methods and assumptions to improve the granularity and accessibility of transparent hosting capacity information. The Commission also **DIRECTS** the Potomac Electric Power Company to provide an update in its annual interconnection report to be filed with the Commission by March 31 each year beginning on March 31, 2021, on the status of other software, methods and assumptions to improve the granularity and accessibility of transparent hosting capacity information;

98. The Commission **ADOPTS** Staff's revised MEDSIS Vision Statement and changes the title of the Statement to the "Power Path DC Vision Statement" as set forth in Appendix C of this Order;

99. The Commission **ADOPTS** the recommendation in the Staff Proposed Order, and **DIRECTS,** that discussion surrounding PBRs continue to be handled in *Formal Case No. 1156* and any other related proceedings, and

100. The Commission **DIRECTS** the Commission Staff to continue to review and discuss "Resilience Hubs" in a new microgrid proceeding to be opened at *Formal Case No. 1163*.

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

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

	ATTACHMENT A: DIRECTIVES IMPLEMENTATION TIME FRAME			
	Directive	**Decisional Paragraph(s)**	**Ordering Paragraph**	**Entity Responsible**
30 Days				
	Begin updating the hosting capacity maps on its website on a monthly basis.	**65-66**	**97**	**PEPCO**
	File proposed process/plan for providing publicly available data for Commission approval.	**38-44**	**92**	**WGL**
60 days	**File report detailing what publicly available data that has been added to its website.**	**38-44**	**91**	**PEPCO**
	Issue Conforming NOI.	**26-27**	**90**	**Commission Staff**
90 Days				
	File report on the status of NWA projects and preliminary plan.	**72**	**96**	**PEPCO**
	Provide a feasibility report for implementing Green Button Connect My Data in the District as outlined in Appendix B and include in the report the timeline of Exelon's systemwide GBCMD plan.	**16**	**94**	**PEPCO**
120 Days				
	Hold IEEE 1547-2018 Standards and Advanced Inverter Deployment educational workshops.	**77**	**93**	**Commission Staff**
	File a report informing the Commission of the status of other software, methods, and assumptions to improve the granularity and accessibility of transparent hosting capacity information.	**66**	**97**	**PEPCO**

APPENDIX B: INFORMATION REQUEST TO PEPCO ON GREEN BUTTON CONNECT MY DATA AND OTHER DATA SHARING PRACTICES

CIWG R-5.4.3: Commission to Work with Pepco to Enhance Customer Data Access and Protection – Pepco to provide responses to the following questions within 90 days.

1. Provide a narrative explaining Pepco's experience to date with Green Button Connect My Data for commercial customers that includes but is not limited to the following questions;

    a. How long has it been available and for which customer classes and how many third-party businesses use it;
    b. How does Pepco review and approve third-party businesses to participate in its CMD program; and
    c. What are the important lessons learned regarding data security and privacy protection issues?

2. Describe the options for implementing Green Button Connect My Data functionality for all residential customers in the District of Columbia that Pepco has considered or may be considering, including:

    a. Expected costs;
    b. A description of the process Pepco will use to review and approve third-party businesses that wish to use Green Button Connect My Data functionality for residential customers;
    c. A review of Green Button Connect My Data implementation at other utilities, both Exelon affiliates and others, that includes lessons learned regarding data security, privacy protection issues, and whether Exelon data security requirements have excluded any third parties from participation in Green Button Connect My Data at any Exelon utilities;
    d. Explain how the options for Pepco's implementation of the Green Button Connect My Data standard for residential customers impacts data security and customer privacy; and
    e. Explain how Green Button Connect My Data has been used to share Greenhouse Gas emissions data with customers. If it has not been used to share Greenhouse Gas emissions data, then explain whether it can be used for that function.

3. Report on Pepco's experience implementing DC Code §§ 34-1507 (a)(3) and 8-1774.07, which pertain to customer protections and the circumstances under which aggregated consumption data can be provided.[106]

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[106] D.C. Code § 8-1774.07 (d)(1) (2001) states that "[w]ithin 30 days after execution of a contract with the SEU, the electric company shall disclose, or allow access to, the aggregate energy use data for every rate class for the electric company customers in the District . . . ."

a. What is Pepco's request and review process for the provision of aggregated customer data; and how often has Pepco provided aggregated customer data and to which parties under these statutes?
b. Describe the aggregates provided: which customer classes are involved and what particular fields are provided; and
c. Describe any complaints Pepco has received regarding the release of customer data under these statutes.

4. Provide a report on the feasibility of sharing anonymized residential customer data with third parties (other than those identified in Question 3) under existing D.C. law, including but not limited to the following questions:

    a. Whether anonymized data is already being shared, if so, with whom and under what circumstances; and
    b. Whether and how customer data can be anonymized in a manner that does not compromise customer privacy or system security.

APPENDIX C: REVISED POWERPATH DC (F/K/A MEDSIS) VISION STATEMENT

Revised PowerPath DC (f/k/a MEDSIS) Vision Statement and Guiding Principles

The PowerPath DC (f/k/a MEDSIS) Vision Statement

The District of Columbia's modern energy delivery system must be sustainable, well-planned, encourage distributed energy resources, and preserve the financial health of the energy distribution utilities in a manner that results in an energy delivery system that is safe and reliable, secure, affordable, interactive, and non-discriminatory.

GUIDING PRINCIPLES

SUSTAINABLE: A sustainable energy delivery system will meet the energy needs of the present without compromising the ability of future generations to meet their own energy needs by focusing on the *triple bottom line*: environmental protection, economic growth, and social equality.

- **Environmental Protection:** Recognize the negative impact that energy usage and demand have on the environment and the human component of climate change. Protect the District's natural resources and assist the District Government in reaching its *Clean Energy DC*[107] goals by fostering the use of more efficient energy and renewable energy sources, Distributed Energy Resource ("DER") technologies, and controllable demand alternatives to reduce greenhouse gas (GHG) emissions and overall energy consumption.

- **Economic Growth:** Foster economic growth in the District's energy markets by supporting innovation and making the District a desirable place for the industry to invest by: (1) removing regulatory barriers that prevent the deployment of DER technologies in the District; (2) engaging industry and community stakeholders in the regulatory reform process; (3) promoting the deployment of pilot programs that will yield lasting economic benefits to District ratepayers; and (4) encouraging innovative business models and the use of scalable financial solutions to reach grid modernization goals.

- **Social Equality:** Recognize the positive impact that energy usage has on the daily lives of District residents. Ensure that, to the extent economically and technically feasible, all District ratepayers have equal access to energy efficiency programs, other DER programs, and modernization technologies approved and implemented by the Commission, as well as access to the Commission's regulatory process. Strengthen community involvement in reaching environmental protection and economic growth goals related to modernizing the District's energy delivery systems by: (1) encouraging and approving programs that fully

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[107] The District Government, through the Department of Energy and Environment, has established a "new climate and energy plan, with 55 actions in three major areas: Buildings, Energy Supply System, and Transportation." The Commission's work through PowerPath DC aims to help the District meet its goal to reduce District-wide energy use by 50% (relative to 2012 levels) by 2032. To meet these energy usage reduction targets, the District is focused on reducing GHG emissions by cutting energy use, increasing renewable energy penetration, and reducing the District's reliance on fossil fuels. https://doee.dc.gov/cleanenergydc

consider, engage, and benefit all District ratepayers, especially the most vulnerable populations; (2) encouraging continued utility and stakeholder investment in educational programs and community outreach initiatives that explain how ratepayers can reduce their energy consumption and use energy more efficiently, including the role of various energy sources, distributed generation (DG), and DERs; and (3) working with utilities and industry stakeholders to develop ways to reduce the soft costs related to the deployment of photovoltaic (PV) systems and DERs in the District.

WELL-PLANNED: With no large-scale generation in the District, the Commission must ensure that the distribution and transmission systems are strong and robust enough to withstand low probability, high impact events like storms, floods, and physical and cyber threats. To meet these needs, the District's modern energy delivery system must be developed in a strategic manner that is data-driven, incorporates advanced technologies, and is collaborative and open – allowing for consumer and stakeholder input. Therefore, utilities must:

- Develop detailed, data-driven Distribution and Integrated Resource Plans that, among other things: make infrastructure planning cost-effective; enable the optimal combination of DERs with traditional capital investment by exploring non-wires alternatives; comply with legislatively mandated deployment of DER in the District; permit rational participation of consumers and distribution service providers; and plan for, track, and monitor DER penetration rates on the grid.

SAFE & RELIABLE: The Commission will ensure that utilities meet and improve safety and reliability performance and that the increasing volume of DERs interconnecting to the District's grid does not negatively impact the safety or reliability of the energy delivery system by:

- Requiring the continued investment in prudent infrastructure improvements to the energy system, like Pepco's reliability investments and WGL's advance pipeline replacement program, so that the energy delivery system can meet the power needs of the District's current and future consumers.

- Reviewing and, where appropriate, updating the Commission's Electricity Quality of Service Standards (EQSS) and Natural Gas Quality of Service Standards (NGQSS) to ensure that the utilities are continually meeting and improving their safety and reliability performance.

- Updating and continually reviewing interconnection rules to facilitate the interconnection of DERs as well as all generation and storage options in a manner that does not compromise overall system safety and reliability.

- Where technically and economically feasible, encouraging the deployment of technologies that will not compromise system safety, will increase system reliability, and can accommodate two-way power flow like smart inverters, distributed automation, and sensors to better handle power fluctuations and outages.

- Enhancing data collection and real-time data sharing between utilities, third party suppliers, and stakeholders, like PJM, to increase system visibility, communication, and DER dispatchability, in a manner that increases the safety, reliability, and resiliency of the energy delivery system, and facilitates new product and service options for customers.

- Classifying DER and microgrid providers generating energy and serving more than one customer as subject to the Commission's authority thus enabling the Commission to protect District ratepayers, enforce the Consumer Bill of Rights (CBOR), and ensure the continued safe and reliable provision of energy service.

SECURE: The modern energy delivery system must be secure from both physical attacks to critical infrastructure components as well as from cybersecurity attacks that target energy information systems and private consumer information. Therefore, utilities and energy service providers must:

- Develop, utilize, and maintain robust physical and cybersecurity protections and risk management strategies that incorporate industry best practices like those established by the National Institute of Standards and Technology's (NIST) Framework for Improving Critical Infrastructure Cybersecurity.

- Ensure that the energy delivery system is resilient, uses modern grid security protocols, and is designed to resist, discourage, and rapidly recover from physical and cybersecurity attacks and system disruptions.

- Safeguard private and or confidential business data and consumer information from intentional or unintentional release or disclosure to untrusted environments.

AFFORDABLE: The Commission has a duty to ensure that rates for distribution service are just and reasonable. The Commission balances the desire of customers to keep rates down with the need to ensure that utilities remain financially healthy, able to attract investors, and pay for needed infrastructure maintenance and development. Balancing these interests, in the context of system modernization, becomes especially challenging when considering costly upgrades to the distribution system as well as potential ratepayer subsidization of costly renewable and DER technologies.

- The Commission recognizes that rapid technological change in the electric and natural gas industries increases the danger of "stranded assets" – capital investments that turn out to be unneeded. For this reason, before making investments in large capital projects, utilities must thoroughly examine the feasibility of non-wires alternatives as solutions to meet the stated investment objective at the lowest overall life-cycle cost. Utilities must also undertake holistic planning approaches that fully examine technological options that can be deployed at a pace and scale that can meet policy objectives and customer expectations for continued system reliability and affordability.

- In the long-term, the Commission expects that, under fair interconnection procedures, DER's will be able to stand on their own in the competitive marketplace without subsidies

from electric and natural gas distribution ratepayers. Therefore, benefits and costs of any proposals to use electric and natural gas distribution rates to compensate new DERs must be weighed carefully and considered in connection with the benefits and efficiencies such DER may bring to the distribution system.

- The Commission is committed to ensuring that ratepayers obtain maximum benefit from their over $90 million investment in Advanced Metering Infrastructure (AMI) by requiring the utility, to the extent economically and technically feasible, to maximize the use of AMI data in Distribution and Integrated Resource Planning, load forecasting, distribution system operations, and rate design as well as require activation of the Home Area Network[108] capabilities of the smart meters.

INTERACTIVE: As an increasing number of smaller scale and more localized resources come online the relationship between the energy distribution company, the consumer, and service providers will become increasingly complex and dynamic. New services will become available, energy and data will increasingly flow in multiple directions, and different types and scales of resources will enter the distribution system. A modern energy delivery system must become more interactive and flexible to accommodate these types of resources while maintaining system reliability and security. This interactivity is critical both in terms of managing the distribution system and in providing locational transparency and technical feasibility which will allow ratepayers, customer-generators, and DER providers to make informed energy choices. Therefore, the Commission:

- Recognizes the importance of the customer's ability to access and share energy data. Access to data empowers customers and third parties to utilize and develop new products and services. This includes activating the Home Area Network capability on customers' smart meters to realize additional benefits of existing AMI infrastructure and streamlining AMI data sharing through tools such as *Green Button Connect My Data* which can securely transfer AMI data to authorized third parties.

- Emphasizes the importance of improving and expanding consumer and stakeholder access to publicly available data related to distribution system constraints and technical capacity. Providing public access to Geographic Information Systems (GIS) such as hosting capacity maps, restricted circuits, and installed and pending solar projects provides critical distribution system information to customer-generators, community renewable energy facility owners, and DER providers.

- Encourages the interaction and communication between DERs, the distribution system, and the macro grid and that technologies that provide value to the distribution system, such as smart inverters, should be prioritized over technologies that merely benefit individual customers.

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[108] A Home Area Network uses a low-power radio transmitter than can communicate with digital devices within the home to make use of energy consumption data from the smart meter.

NON-DISCRIMINATORY: Nondiscrimination in the operation of the District's energy infrastructure is integral to the Commission's mandate to supervise energy utilities in the District of Columbia. Furthermore, since the restructuring of the energy markets, the need for the Commission to ensure that energy utilities operate in a nondiscriminatory manner has proliferated. Nondiscrimination covers both the technical operation of and the rates and fees charged for utilizing and accessing the energy utility infrastructure. The Commission will ensure that the District's modern energy system is non-discriminatory, open to competition, and provides for customer choice in accordance with District law by:

- Affording DER providers with a low-cost and streamlined interconnection process to facilitate customer generation. Encouraging continuous improvement and development of initiatives, like Pepco's *Green Power Connection*, that facilitate DER interconnection and build off past experience to reduce or eliminate barriers so that DERs can compete on a level playing field with wholesale energy.

- Unlocking customer and system data held by the incumbent utility in a controlled manner so that customers, DER providers, and third-party suppliers can provide targeted offerings to meet system needs and better serve the needs of customers.

- Pursuing policies that are technology neutral in both system operations and rate structure so that rates remain just and reasonable.

- Achieving the maximum benefits of competition and encouraging stakeholders to bring forward proposals for the competitive provision of services now included in the regulated monopoly distribution services.