

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

ORDER

January 9, 2019

RM40-2017-01, 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. 19795

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia (“Commission”), pursuant to D.C. Code § 34-802 and in accordance with D.C. Code § 2-505, adopts the attached amendments to Chapter 40, “District of Columbia Small Generator Interconnection Rules” of Title 15 (Public Utilities and Cable Television) of the District of Columbia Municipal Regulations (“DCMR”). The attached amendments will become effective upon the date of publication of the Notice of Final Rulemakings (“NOFR”) in the *D.C. Register*. Pursuant to the directives in paragraph 41-42 of this Order, the Potomac Electric Power Company (“Pepco”) is directed to file a revised Change Notice in the *Formal Case No. 1050* docket within thirty (30) days of the date of this Order. In accordance with paragraphs 45-46 of this Order, the Commission also directs consideration of the Pepco’s hosting capacity methodology to the non-wires alternatives (“NWA”) working group established by Order No. 19432 in *Formal Case No. 1130*. Finally, the RM9 Net Energy Metering (“NEM”) Working Group is directed to consider the issues raised in paragraphs 47-49 of this Order in their discussions regarding community renewable energy facilities (“CREFs”) and include recommendations for Commission action in their final working group report.

II. BACKGROUND

2. On February 17, 2017, the Commission issued a NOPR proposing to amend Chapter 40 of Title 15 of the DCMR.¹ Initial and reply comments were due on April 2 and April

¹ *RM40-2017-01, In the Matter of 15 DCMR Chapter 40 – District of Columbia Small Generator Interconnection Rules (“RM40-2017-01”) and Formal Case No. 1050, In the Matter of the Investigation of Implementation of Interconnection Standards in the District of Columbia (“Formal Case No 1050”), Notice of Proposed Rulemaking, rel. February 17, 2017 (“First NOPR”).*

18, 2017, respectively. Subsequently, the Commission, in a Notice of Extension,² extended the comment deadlines on the NOPR to May 3 and May 18, 2017, respectively. Initial and reply comments were only filed by the Office of People’s Counsel for the District of Columbia (“OPC”)³ and Pepco.⁴

3. After reviewing the comments filed on the First NOPR, Staff recommended that a Second NOPR be issued so that interested persons could further comment on the proposed changes to the Commission’s interconnection rules. On October 6, 2017, the Second NOPR was issued in the *D.C. Register* providing for an initial and reply comment period of thirty (30) and fifteen (15) days, respectively. On October 25, 2017, OPC filed a motion for an extension of time to file initial and reply comments to December 1, 2017, and December 22, 2017, respectively.⁵ OPC’s Motion was granted.⁶

4. Initial comments on the Second Interconnection NOPR were filed by Pepco, OPC, Washington Gas Light Company Energy (“WGL Energy”), the Department of Energy and Environment (“DOEE”), Peer Consultants, P.C., Sunrun, Inc., and Solar Consortium.⁷ Reply comments were filed by Pepco, OPC, and New Columbia Solar (“New Partners”), Groundswell and Pranay P. Kohli.⁸

² 64 *D.C. Reg.* 4069 (April 28, 2017) (“Notice of Extension”).

³ *RM40-2017-01 and Formal Case No. 1050*, Initial Comments of the Office of the People’s Counsel for the District of Columbia Regarding the Notice of Proposed Rulemaking Containing Proposed Amendments to Chapter 40 of Title 15 of the District of Columbia Municipal Regulations, filed May 3, 2017; *RM40-2017-01*, Reply Comments of the Office of the People’s Counsel for the District of Columbia Regarding the Notice of Proposed Rulemaking Containing Proposed Amendments to Chapter 40 of Title 15 of the District of Columbia Municipal Regulations, filed May 18, 2017.

⁴ *RM40-2017-01 and Formal Case No. 1050*, Initial Comments of the Potomac Electric Power Company, filed May 3, 2017; *RM40-2017-01 and Formal Case No. 1050*, Reply Comments of Potomac Electric Power Company, filed May 18, 2017.

⁵ *RM40-2017-01 and Formal Case No. 1050*, Office of the People’s Counsel for the District of Columbia’s Motion for Enlargement of Time to Submit Comments regarding October 6, 2017 Notice of Proposed Rulemaking, filed October 25, 2017 (“OPC’s Motion”). See also ERRATA to OPC’s Motion, filed October 26, 2017.

⁶ *RM40-2017-01 and Formal Case No. 1050*, Order No. 19156, rel. October 26, 2017.

⁷ *RM40-2017-01*, Potomac Electric Power Company Initial Comments, filed December 1, 2017; *RM40-2017-01*, Office of the People’s Counsel Initial Comments, filed December 1, 2017; *RM40-2017-01*, Washington Gas Light Company Energy Comments, filed December 1, 2017; *RM40-2017-01*, Department of Energy and Environment Comments, filed October 26, 2017; *RM40-2017-01*, Peer Consultants, P.C., filed October 27, 2017; *RM40-2017-01*, Sunrun, Inc. Comments, filed December 1, 2017; and *RM40-2017-01*, Solar Consortium, filed October 26, 2017.

⁸ *RM40-2017-01*, Potomac Electric Power Company Reply Comments, filed December 22, 2017); *RM40-2017-01*, Office of the People’s Counsel Reply Comments, filed December 22, 2017; *RM40-2017-01*, Groundswell, WinnCompanies, and Eco Capitol Solar Reply Comments, LLC, filed November 13, 2017; *RM40-2017-01*, New Columbia Solar Reply Comments, filed December 22, 2017; and *RM40-2017-01*, Pranay P. Kohli Reply Comments, filed November 15, 2017. The summary of comments from “New Partners” includes the comments of the National Housing Trust, Solar United Neighbors, MDV-SEIA, Ipsum Power, Honeydew Energy Advisors, Ethos Strategic Consulting, GRID Alternatives, and New Columbia Solar.

5. Upon initial review of the comments filed in response to the Second NOPR, Staff recommended holding a technical conference to provide a forum for stakeholders to discuss issues raised in comments. On April 23, 2018, the Commission issued a Public Notice scheduling a two-part technical conference for May 17, 2018. At the technical conference, stakeholders discussed issues raised regarding distribution system upgrade costs⁹ imposed on CREF developers pursuant to 15 DCMR § 4008.13 as well as broader interconnection-related issues.¹⁰

6. Staff filed a detailed Technical Conference Report on June 1, 2018.¹¹ On September 21, 2018, the Commission issued a Third NOPR in this matter in the *D.C. Register*, revising the rules pursuant to comments filed in the docket and lodged at the Technical Conference.¹² Because several of the comments raised require action outside the context of the working group, the Commission also established the RM9 NEM Working Group.¹³ Initial

⁹ *RM40-2017-01 and Formal Case No. 1050*, Meeting Minutes of the May 17th Technical Conference, filed June 1, 2018. According to the Meeting Minutes, DOEE confirmed that implementation costs and system upgrade costs for CREFs in the Solar for All Program are covered by DOEE grants.

¹⁰ *RM40-2017-01, Formal Case No. 1050, and RM9-2015-01, In the Matter of 15 DCMR Chapter 9 – Net Energy Metering – Community Renewable Energy Amendment Act of 2013 (“RM9-2015-01”)*, Public Notice May 17, 2018 Technical Conference, issued April 23, 2018. In the Technical Conference, Pepco states that 45 CREFs are in various stages of development. In the July 10, 2018 Semi-Annual CREF Report, Pepco reports 9 operational CREFs which enabled the provision of customer credits within the District.

¹¹ *RM40-2017-01, Formal Case No. 1050, and RM9-2015-01*, Technical Conference Meeting Minutes, filed June 1, 2018.

¹² 65 *D.C. Reg.* 9763-9799 (September 21, 2018).

¹³ The RM9 NEM Working Group convened its first meeting on December 7, 2018. The meeting minutes from the working group meeting were filed with the Commission on December 17, 2018, and are accessible through the Commission’s e-docket system.

comments on the Third NOPR were filed by the OPC,¹⁴ Pepco,¹⁵ and DOEE.¹⁶ Reply comments were filed by OPC,¹⁷ Pepco,¹⁸ and by the Joint Solar Advocates (“JSA”).¹⁹

7. Because this is the 3rd NOPR issued related to this matter, the comment summaries and Commission decisions focus on newly proposed changes and the resolution of points of disagreement between commenters.

III. DISCUSSION

A. Initial Comments

8. **Pepco.** Pepco asserts that the Commission should modify the timeline for Pepco to make the power flow-based studies in Subsections 4003(e), 4004.2(h), 4005.2(m), and 4011(i) available to the Commission.²⁰ Specifically, Pepco acknowledges that the proposed rule requires Pepco to make the study available upon request of the Commission within thirty (30) days of analysis completion. Pepco asserts that it “anticipates that it will complete a power flow analysis [] much more than 30 days in advance of receiving a request from the Commission for a copy of the analysis;” therefore, it proposes that the language be modified to “require that Pepco make available to the Commission a copy of its power flow-based study for each Interconnection Customer upon request within thirty (30) days after receiving the request from the Commission.”²¹

9. Pepco reasserts its position that the Commission should retain the clearly defined stages of the existing interconnection process and proposes the following revisions to the Third

¹⁴ *RM40-2017-01, and Formal Case No. 1050, Initial Comments of the Office of the People’s Counsel for the District of Columbia Regarding the Notice of Third Proposed Rulemaking, filed October 22, 2018 (“OPC’s Initial Comments”).*

¹⁵ *RM40-2017-01 and Formal Case No. 1050, Initial Comments of Potomac Electric Power Company, filed October 22, 2018 (“Pepco’s Initial Comments”).*

¹⁶ *RM40-2017-01 and Formal Case No. 1050, Comments by the Department of Energy and Environment on Behalf of the District of Columbia Government, filed October 22, 2018 (“DOEE’s Initial Comments”).*

¹⁷ *RM40-2017-01 and Formal Case No. 1050, Reply Comments of the Office of the People’s Counsel for the District of Columbia Regarding the Notice of Third Proposed Rulemaking, filed November 5, 2018 (“OPC’s Reply Comments”).*

¹⁸ *RM40-2017-01 and Formal Case No. 1050, Reply Comments of Potomac Electric Power Company Regarding Notice of Proposed Rulemaking, filed November 5, 2018 (“Pepco’s Reply Comments”).*

¹⁹ *RM40-2017-01 and Formal Case No. 1050, Joint Comments of Sunrun Inc., Solar United Neighbors, MDV-SEIA, New Columbia Solar and Solar Energy Services Regarding Notice of Third Proposed Rulemaking on Interconnection Standards, filed November 6, 2018 (“JSA’s Reply Comments”).*

²⁰ Pepco’s Initial Comments at 1.

²¹ Pepco’s Initial Comments at 1-2.

NOPR to “better align the process . . . with the current interconnection process and required timeframes.”²²

- a. Only assigning a queue position to customers whose applications are deemed complete (Subsection 4004.2).
- b. Revise Subsection 4004.3(c) to restore the 15 business days Pepco has to complete the Adverse System Impact screening in the Approval to Install stage.²³

10. Pepco also proposes revising “Section 4004.2(e)[] to allow the interconnection of [] Level 1 interconnection projects that exceed the 50% limit where Pepco has determined that doing so will not compromise reliability.”²⁴ Pepco asserts that it is already allowing such projects to interconnect and that doing so “benefits interconnection customers by allowing more generation projects to be interconnected to Pepco’s distribution system.”²⁵

11. Pepco also asserts that the definition of Approval to Install in the Third NOPR “would require Pepco to provide an executed copy of the Interconnection Agreement along with the Approval to Install.” However, Pepco states that this is different than the current interconnection review process, which Pepco asserts “customers, contractors, and other stakeholders have come to expect from Pepco and that [c]hanging the timing [] will cause confusion and thereby delay the interconnection process.”²⁶ Pepco further asserts that this process is “similar in Maryland, Delaware, and New Jersey, and where Pepco’s affiliate utilities operate” and that “the issue of requiring an executed Interconnection Agreement earlier has arisen infrequently and only in the context of Community Renewable Energy Facilities (“CREF”) in the District of Columbia.”²⁷ Pepco concludes that the rule should not be changed to fit the exception and that the issue “should be addressed in the CREF-specific working group process.”²⁸

12. Pepco proposes the adoption of a “determinative document when an assignment or transfer of generator ownership occurs.”²⁹ Specifically, Pepco asserts that “the existence of two different provisions regarding the assignment or transfer of ownership in the interconnection agreement and the Net Energy Metering Contract [] has caused confusion;” therefore, adopting

²² Pepco’s Initial Comments at 2.

²³ Pepco argues that shortening the timeline “could result in Pepco not having sufficient time to conduct a proper analysis, which would jeopardize the safety and reliability of the distribution system” and that with the increased nameplate capacity for generators, the process could require more time to complete. Pepco’s Initial Comments at 3.

²⁴ Pepco’s Initial Comments at 4.

²⁵ Pepco’s Initial Comments at 4.

²⁶ Pepco’s Initial Comments at 5.

²⁷ Pepco’s Initial Comments at 5.

²⁸ Pepco’s Initial Comments at 5.

²⁹ Pepco’s Initial Comments at 6.

the Level 1 Interconnection Agreement Change Notice Pepco attached to its filing as Appendix B “would provide clear guidance to customers as to what is required of them when they are the recipient of a small generator facility transfer or assignment.”³⁰

13. Pepco requests that the EDC acknowledgement in the Level 2, 3, and 4 interconnection request form be removed as “superfluous” because “Pepco provides such acknowledgement to the customer via email once an interconnection request is deemed complete.”³¹

14. **OPC.** OPC asserts that “in toto” it supports the proposed amendments to Sections 4004 (Level 1 Interconnection Reviews), 4005 (Level 2 Interconnection Reviews), 4006 (Level 3 Interconnection Reviews), and 4008 (Technical Requirements) in the Third NOPR.³² However, OPC asserts that “Section 4004.2(a) contains an error in the text.” Specifically, the text says: “The Small Generator Facility has a Nameplate Capacity of twenty-five (20) kW or less.”³³ OPC states that the number in parenthesis should be changed to 25.³⁴ Similarly, OPC asserts that a period is missing from the end of Subsection 4011(1) (Supplemental Review).³⁵

15. OPC asserts that the proposed changes to Subsection 4008.13 (Technical Requirements), specifically the inclusion of the concept of a “post-upgrade reimbursement” for allocating system upgrade costs paid for by the interconnection customer, lacks clarity and “needs further study.” OPC recommends that a “study would explore the optimum size projects that would be eligible for post-upgrade reimbursement; the methodology to be used to determine the dollar amount and percentage of upgrade costs to allocate to subsequent projects, and the DER projects [] that would be eligible to participate in the post-upgrade reimbursement scheme”³⁶ Therefore, OPC recommends that this language be removed from the rule “until the Commission can provide a detailed plan about how this post-reimbursement process will work.”³⁷

16. **DOEE.** DOEE focuses its comments on the need for increased (1) visibility and stakeholder participation in Pepco’s hosting capacity methodology, and (2) transparency and predictability of interconnection costs.³⁸ To its first point, DOEE notes that the “Commission

³⁰ Pepco’s Initial Comments at 6.

³¹ Pepco’s Initial Comments at 6 (citing Subsection 4005.4(a)).

³² OPC’s Initial Comments at 2.

³³ OPC’s Initial Comments at 3.

³⁴ OPC’s Initial Comments at 3.

³⁵ OPC’s Initial Comments at 7.

³⁶ OPC’s Initial Comments at 6-7.

³⁷ OPC’s Initial Comments at 7.

³⁸ DOEE’s Initial Comments at 1-2.

presents a series of methods for excluding small generator facilities through adverse system impact screens for Level 1, 2, and 3 systems in Sections 4004.2, 4005.2, and 4006.1.”³⁹ DOEE requests that the Commission “undertake a stakeholder engagement process to validate the proposed methodology to ensure they do not underestimate the grid’s hosting capacity, and therefore unnecessarily restrict DER development within the District.”⁴⁰ DOEE also recommends that the final determinations as to Level 4 distribution system upgrade costs addressed in Section 4007.2 “be made collaboratively with Pepco and impacted stakeholders, including DER developers.”⁴¹ DOEE also note the need for a “more robust methodology for analyzing the District’s hosting capacity . . . to ensure the safe operation of the distribution system.”⁴²

17. With respect to interconnection costs, DOEE proposes amending Subsection 4007.2 to (a) increase “transparency in how Pepco determines distribution upgrade costs, and (b) institute a robust stakeholder process when developing interconnection feasibility, impact, and facilities studies.”⁴³ DOEE “commends the Commission for establishing the RM9 Net Energy Metering Working Group to further explore interconnection issues for CREFs” but also recommends amending Subsection 4008.13 to address its concern that “determinations about required distribution system, upgrade and their associated costs for DER projects [will] be made without complete transparency, and that 100 percent of those costs will be charged to the CREF developer.”⁴⁴ DOEE recommends that the “Commission develop rules for determining when certain distribution upgrade costs can be fairly rate based, when costs should be incurred by the CREF developer, and when costs should be shared across renewable energy projects on that feeder.”⁴⁵

18. Finally, with respect to Subsection 4003.2, DOEE expresses its support for “the creation of a Pre-Application Report to help developers identify more accommodating sites for installations of generator-based resources,” but questions whether “the imposition of a \$300 non-refundable processing fee may act as a deterrent to greater utilization of these reports.”⁴⁶ DOEE recommends that “the Commission consider a waiver of this fee for Level 4 projects benefitting low income customers, such as DOEE’s Solar for All community solar projects.”⁴⁷

³⁹ DOEE’s Initial Comments at 4.

⁴⁰ DOEE’s Initial Comments at 5.

⁴¹ DOEE’s Initial Comments at 5.

⁴² DOEE’s Initial Comments at 5.

⁴³ DOEE’s Initial Comments at 9.

⁴⁴ DOEE’s Initial Comments at 9.

⁴⁵ DOEE’s Initial Comments at 9.

⁴⁶ DOEE’s Initial Comments at 10.

⁴⁷ DOEE’s Initial Comments at 10.

B. Reply Comments

19. **Pepco.** In its Reply Comments Pepco asserts that the typo in Subsection 4004.2(a) should be resolved as proposed in its Initial Comments, not as proposed by OPC, because the “20kW limitation allows Pepco to be consistent with its Maryland service territory– and Maryland Rules–and, thus, gain operational efficiencies in processing Level 1 applications.”⁴⁸ Pepco also reiterates its “position that 15 days is necessary” to complete an adverse impact screen, and Subsection 4004.3(c) should be so amended.⁴⁹

20. With respect to OPC and DOEE’s comments related to distribution upgrade and CREF interconnection costs, Pepco notes that “the Commission will be convening a working group on December 7, 2018 to discuss issues related to [CREFs] and [NEM] facilities, including distribution system upgrade costs–specifically citing Section 4008.13.” Therefore, Pepco asserts that the “issues identified by OPC and DOEE [] that relate to the assignment and/or development of interconnection project costs,” including “the \$300 processing fee associated with the pre-application report in Section 4003.2,” “be explored outside of this NOPR proceeding and addressed in the context of the working group process established by the Commission.”⁵⁰

21. Lastly, regarding DOEE’s comments seeking greater visibility and stakeholder participation into the development of hosting capacity on Pepco’s distribution systems, “Pepco agrees that a robust and transparent DER criteria, hosting capacity methodology and process are essential to optimizing solar and other [DERs].”⁵¹ However, Pepco believes these topics are best addressed in “a Commission workshop or within the current MEDSIS process.”⁵² Pepco therefore “proposes to hold a special meeting or workshop with Commission Staff and stakeholders to present Pepco’s [hosting capacity assessment (“HCA”)] methodology.”

22. **OPC.** In its Reply Comments, OPC expresses its support for DOEE’s recommendations to increase visibility and stakeholder participation into Pepco’s hosting capacity methodology and increase transparency and predictability around interconnections.⁵³ OPC also does not oppose DOEE’s recommendation that the \$300 non-refundable processing fee for a Pre-Application Report be waived for Level 4 projects benefiting low-income customers.⁵⁴

23. With respect to Pepco’s Comments, OPC asserts that “Sections 4003.3(e), 4004.2(g), 4005.2(m), and 4011(i) be amended by striking the language ‘within thirty (30) days

⁴⁸ Pepco’s Reply Comments at 2.

⁴⁹ Pepco’s Reply Comments at 2.

⁵⁰ Pepco’s Reply Comments at 3, 5.

⁵¹ Pepco’s Reply Comments at 4.

⁵² Pepco’s Reply Comments at 4.

⁵³ OPC’s Reply Comments at 2.

⁵⁴ OPC’s Reply Comments at 4.

after analysis completion.” OPC contends that this “change does not provide any timeline for the EDC and presumes the EDC would respond to a request for the already completed study immediately.”⁵⁵

24. OPC also asserts that if Pepco’s request that a queue position not be assigned to a customer until the submission of a complete application is accepted, then the Commission should “also adopt language to help Level 1 customers complete their requests more easily and quickly.”⁵⁶ Specifically, OPC recommends “that Pepco’s proposed queue- position language be designated as letter ‘(c)’, and OPC’s proposed language (i.e., ‘When the Interconnection Request is deemed incomplete, the EDC shall provide a written list detailing all information that must be provided to complete the request.’) be added beforehand as letter” (b).⁵⁷

25. OPC opposes Pepco’s request to lengthen the EDC’s time to complete the adverse system impact screen, rejecting Pepco’s assertion that the shorter time period jeopardizes the distribution system’s safety and reliability, and Pepco’s request to remove the requirement that the EDC provide an executed copy of the Interconnection Agreement along with the Approval to Install, rejecting Pepco’s assertion that the requirement will cause confusion and delay the interconnection process.⁵⁸

26. OPC supports Pepco’s request to allow for increased Level 1 interconnections within a spot area network as long as there is no impact on reliability because it allows for greater DER penetration in the District.⁵⁹ OPC also supports Pepco’s proposal to adopt an Interconnection Agreement Change Notice to provide clear guidance to customers and notice to Pepco.⁶⁰

27. Lastly, OPC opposes Pepco’s request to eliminate the Level 2, 3, and 4 EDC acknowledgement of a complete and fully paid interconnection request form. OPC asserts that Pepco should have to demonstrate “that elimination of the acknowledgement form will not impact recording of compliance with the five-day application processing requirement.”⁶¹

28. **JSA.** JSA joins OPC in their opposition to Pepco’s request to increase the 5-day application processing timeline required in Subsection 4004.3. JSA notes that “[m]any utilities across the country are able to meet shorter than 5-day timeline for acknowledging receipt of interconnection applications, and even completing the entire pre-construction approval process.”⁶²

⁵⁵ OPC’s Reply Comments at 5.

⁵⁶ OPC’s Reply Comments at 6.

⁵⁷ OPC’s Reply Comments at 6.

⁵⁸ OPC’s Reply Comments 7-8.

⁵⁹ OPC’s Reply Comments at 6-7.

⁶⁰ OPC’s Reply Comments at 8-9.

⁶¹ OPC’s Reply Comments at 9.

⁶² JSA’s Reply Comments at 5-6.

JSA asserts that the Commission should encourage Pepco to employ technological advancements used in other jurisdictions “by requiring shorter review periods throughout the interconnection process, with an ultimate aim for a one or two-day receipt processing period for consumers.”⁶³

29. While acknowledging that “Pepco has been a leader among utilities in the Mid-Atlantic on the provision of hosting capacity maps for the public and DER providers,” JSA “agree with DOEE that a greater focus on hosting capacity throughout the grid is imperative for greater deployment of solar in the District.”⁶⁴ JSA asserts that “Pepco’s current periodic updating of the hosting capacity maps could be accelerated,” as noted by DOEE, “to more frequent updating to provide a more accurate snapshot into sites on the grid available for solar installation.”⁶⁵ JSA also asserts that Pepco’s hosting capacity assessment methodology warrants further inclusive stakeholder review and analysis.⁶⁶

30. Finally, JSA supports DOEE’s recommendation that the Commission develop rules for determining distribution system upgrade costs. While acknowledging that the Commission has established a working group to “delve into interconnection costs for CREFs,” JSA “supports adding language in the rules that confirm a commitment to open and transparent stakeholder engagement on the determination of interconnection costs and interconnection feasibility and impact studies.”⁶⁷

IV. DECISION

A. Power Flow Study Submission

31. Pepco asserts that it anticipates completing the power flow analysis referenced in Subsections 4003(e), 4004.2(h), 4004.2(h), 4005.2(m), and 4011(i) well in advance of receiving a request from the Commission for a copy of the analysis; therefore, Pepco recommends those subsections be modified to “require that Pepco make available to the Commission a copy of its power flow-based study for each Interconnection Customer upon request within thirty (30) days after receiving the request from the Commission.”⁶⁸ OPC asserts that the issue identified by Pepco can be more simply addressed by “striking the language ‘within thirty (30) days after analysis completion.’” OPC contends that this “change does not provide any timeline for the EDC and presumes the EDC would respond to a request for the already completed study immediately.”⁶⁹

⁶³ JSA’s Reply Comments at 5-6.

⁶⁴ JSA’s Reply Comments at 6.

⁶⁵ JSA’s Reply Comments at 7.

⁶⁶ JSA’s Reply Comments at 8.

⁶⁷ JSA’s Reply Comments at 9.

⁶⁸ Pepco’s Initial Comments at 1-2.

⁶⁹ OPC’s Reply Comments at 5.

32. We agree with OPC, that by simply striking the language “within thirty (30) days after analysis completion” the timing issue identified by Pepco is resolved and the change is clarifying not substantive. In any event, this provision deals with the provision of the analysis to the Commission and does not impact interconnection applicants. Therefore, the attached rules reflect OPC’s clarifying amendment.

B. Level 1 Adverse Impact Screening Completion Timeline

33. Pepco reiterated its request to revise Subsection 4004.3(c) to restore the 15 business days Pepco has to complete the Adverse System Impact screening in the Approval to Install stage.⁷⁰ OPC, DOEE, and JSA all oppose increasing the timeframe from 5 days to 15 days and OPC recognized that in response to Pepco’s prior comments the Commission increased the timeframe from 3 days in the Second NOPR to 5 days in the Third NOPR. Absent a compelling reason to decide otherwise, like adverse impacts on system safety and reliability, it is important that the interconnection processes continue to improve, and the timeframes contained in these rules demonstrate our commitment to more quickly and efficiently facilitate the interconnection of solar arrays in the District. Additionally, our timelines are in-line with the required completion timeframes in other jurisdictions, like New Jersey. As Pepco has provided no such compelling reason to further increase the timeframe for completion of the Adverse Impact Screening, we reject its proposed change.

C. Assigning a Queue Position (§ 4004.2)

34. As part of its recommendation that the Commission retain clearly defined stages of the interconnection process, Pepco requests that Subsection 4004.2 be revised to only require the EDC to assign a queue position to customers whose applications are deemed complete.⁷¹ OPC asserts that if the Commission accepts Pepco’s request, then we should also adopt language to help Level 1 customers complete their requests more efficiently. Specifically, OPC recommends “that Pepco’s proposed queue- position language be designated as letter ‘(c)’, and OPC’s proposed language (i.e., ‘When the Interconnection Request is deemed incomplete, the EDC shall provide a written list detailing all information that must be provided to complete the request.’) be added beforehand as letter” (b).⁷²

35. The Commission finds it unnecessary to make either of the proposed changes. As to Pepco’s request, Subsection 4004.3 prescribes how Level 1 interconnection reviews are to be conducted. Subsection (b) clearly states: “When an Interconnection Request is complete, the EDC shall assign the request a Queue Position.” Therefore, the requirement of a completed application before the assignment of a queue position is already in the proposed rules. Based on this decision,

⁷⁰ Pepco argues that shortening the timeline “could result in Pepco not having sufficient time to conduct a proper analysis, which would jeopardize the safety and reliability of the distribution system” and that with the increased nameplate capacity for generators, the process could require more time to complete. Pepco’s Initial Comments at 3.

⁷¹ Pepco’s Initial Comments at 3.

⁷² OPC’s Reply Comments at 6.

OPC's recommended change, proposed as contingent on adopting Pepco's modification, is also unnecessary.

D. Nameplate Capacity (§ 4004.2)

36. OPC asserts that "Section 4004.2(a) contains an error in the text." Specifically, the text says: "The Small Generator Facility has a Nameplate Capacity of twenty-five (20) kW or less."⁷³ OPC states that the number in parenthesis should be changed to 25.⁷⁴ Similarly, OPC asserts that a period is missing from the end of Subsection 4011(1) (Supplemental Review).⁷⁵ Pepco asserts that the typo in Subsection 4004.2(a) should be resolved as proposed in its Initial Comments, not as proposed by OPC, because the "20kW limitation allows Pepco to be consistent with its Maryland service territory– and Maryland Rules–and, thus, gain operational efficiencies in processing Level 1 applications."⁷⁶

37. The discrepancy in this text is a typo. Per the outcomes of the Technical Conference held in this matter, the text of the final NOFR has been corrected to read: "The Small Generator Facility has a Nameplate Capacity of twenty (20) kW or less."

E. Level 1 Interconnections within Spot or Area Network

38. Pepco proposes revising Subsection 4004.2(e) to allow Level 1 interconnection projects to exceed the 50% limit where the EDC has determines doing so will not adversely impact reliability, a change that would conform the rule with Pepco's current practices.⁷⁷ OPC supports Pepco's request asserting that the change will permit greater DER penetration in the District. The Commission agrees with both Pepco and OPC. We believe that this change will not only help achieve the District's aggressive clean energy goals by facilitating DER interconnections, but it will also not adversely impact the reliability of the distribution system. We note that this is not a substantive change as the proposed rules provided Pepco with the ability to move forward with a project that failed the screening if it determined that the project did not compromise reliability. This amendment simply clarifies this option explicitly in the rules. Therefore, Subsection 4004.2(e) has been clarified accordingly.

39. In accordance with the clarifying change approved above and to further the EDC's ability to efficiently move projects forward, the language in Subsection 4004.3(c) should also be clarified to state: "If the proposed interconnection meets all of the applicable Level 1 Adverse System Impact screens *or* the EDC determines that the Small Generator Facility can be

⁷³ OPC's Initial Comments at 3.

⁷⁴ OPC's Initial Comments at 3.

⁷⁵ OPC's Initial Comments at 7.

⁷⁶ Pepco's Reply Comments at 2.

⁷⁷ Pepco's Initial Comments at 4.

interconnected safely and reliability to its system, the EDC shall provide the Interconnection Customer with an Approval to Install.”

F. Interconnection Agreement with Approval to Install

40. Pepco asserts that the definition of Approval to Install in the 3rd NOPR requires Pepco to provide an executed copy of the Interconnection Agreement along with the Approval to Install, which is a different process than what is currently in place. Pepco asserts that this change will create unnecessary confusion and delay in the interconnection process and seems to be designed to address an exception raised by commenters. We disagree. We understand that Pepco does not execute the agreement in other jurisdictions, but that fact alone is insufficient to justify why the executed agreement should not be provided here. Further, considering that: (1) the executed Approval to Install is only conditional approval of the system; (2) providing the executed Approval to Install does not prevent Pepco from later denying the Authorization to Operate for failure to install a compliant system; and (3) commenters have stated that having an executed Approval to Install agreement helps with the financing process, we reject Pepco’s request to amend the rules to remove the requirement.

G. Interconnection Agreement Change Notice (Pepco Appendix B)

41. Pepco proposes the adoption of the Level 1 Interconnection Agreement Change Notice Pepco attached to its filing as Appendix B, asserting that it “would provide clear guidance to customers as to what is required of them when they are the recipient of a small generator facility transfer or assignment.”⁷⁸ OPC supports Pepco’s proposal.⁷⁹

42. While the Commission agrees that the development and use of a Change Notice may help facilitate the efficient transfer or assignment of existing systems to new owners in the District, we have concerns related to the Change Notice Pepco proffered as Appendix B. For example, the proposed Change Notice requires the new account holder to certify the system and accept additional terms and conditions beyond those in the existing interconnection agreement, requests system data already provided, and furnishes the EDC approval to operate which has already been granted. We do not see the relevance of this information as the proposed Change Notice is supposed to govern the transfer or assignment of ownership of an existing system that has already been approved by the EDC. In looking at Change Notices used elsewhere, including the one used by PJM, it appears that the relevant information for a Change Notice is: (1) acknowledgment of the existing customer (by account); (2) identifying information and acknowledgement of the new account holder; (3) agreement to terms and conditions of existing interconnection agreement; (4) attesting that no modifications have been made to the system between approval and pending transfer/assignment; and (5) provision for a system inspection by the EDC, if desired. For these reasons, the Commission rejects Pepco’s proposed Change Notice and directs Pepco to file a revised Change Notice for our consideration in the *Formal Case No. 1050* docket within 30 days of the date of this Order.

⁷⁸ Pepco’s Initial Comments at 6.

⁷⁹ OPC’s Reply Comments at 8-9.

H. Acknowledgment of Complete Interconnection Request

43. Pepco requests that the EDC acknowledgement in the Level 2, 3, and 4 interconnection request form be removed as “superfluous” because “Pepco provides such acknowledgement to the customer via email once an interconnection request is deemed complete.”⁸⁰ OPC opposes this request asserting that Pepco should have to demonstrate “that elimination of the acknowledgement from the form will not impact recording of compliance with the five-day application processing requirement.”⁸¹

44. The Commission agrees that the EDC acknowledgement on the Level 2, 3, 4 interconnection request form is superfluous as Subsection 4005.4 (a) of the rules require EDC acknowledgement in writing or by electronic mail. However, to clarify that the EDC is acknowledging receipt of both the Interconnection Request and the application fee, we modify Subsection 4005.4(a) to include the phrase: “acknowledge, in writing or by electronic mail, receipt of the Interconnection Request, indicating whether it is complete or incomplete, and the appropriate application fee.” This clarification is non-substantive as the acknowledgement was already required in the proposed rules. The attached rules and the Level 2, 3, 4 Interconnection Request Form have been revised accordingly.

I. Pepco Load Forecasting Methodology

45. DOEE requests that the Commission “undertake a stakeholder engagement process to validate the proposed methodology to ensure they do not underestimate the grid’s hosting capacity, and therefore unnecessarily restrict DER development within the District.”⁸² OPC and JSA express support for DOEE’s recommendations to increase visibility and stakeholder participation into Pepco’s hosting capacity methodology and increase transparency and predictability around interconnections, agreeing that further inclusive stakeholder review and analysis is warranted. Pepco agreed with commenters that “a robust and transparent DER criteria, hosting capacity methodology and process are essential to optimizing solar” and other DERs, concluding that the issue should be addressed in MEDSIS or in a Commission workshop. Therefore, Pepco proposes to hold a special meeting or workshop with Commission Staff and stakeholders to present its HCA methodology.⁸³

46. We find reasonable DOEE’s request that a stakeholder engagement process be implemented to provide transparency and input into Pepco’s load forecasting methodology. We also agree with Pepco that this matter should be handled within the MEDSIS working group process as relevant stakeholders are already participating and needed information sharing is already underway. Therefore, we direct that a review of Pepco’s load forecasting methodology be

⁸⁰ Pepco’s Initial Comments at 6 (citing Subsection 4005.4(a)).

⁸¹ OPC’s Reply Comments at 9.

⁸² DOEE’s Initial Comments at 5.

⁸³ Pepco’s Reply Comments at 4.

conducted within the non-wires alternatives (“NWA”) working group established by Order No. 19432 in *Formal Case No. 1130*. Within the working group process, Pepco can provide Commission Staff and stakeholders with a detailed presentation on its current HCA methodology and recommendations for changes can be developed collaboratively with stakeholders

J. CREF Interconnection Costs

1. System Upgrade Costs and Post-Upgrade Reimbursements (§ 4008.13)

47. DOEE recommends amending Subsection 4008.13 to address its concern that determinations regarding distribution system upgrades and the assessment of their associated costs will be made without transparency. DOEE asserts that rules should be developed to address when certain distribution upgrade costs can be fairly rate based, when costs should be incurred by the CREF developer, and when costs should be shared across renewable energy projects on that feeder.⁸⁴ DOEE also recommends that the \$300 non-refundable processing fee for the creation of a Pre-Application Report imposed in § 4003.2 be waived for Level 4 projects benefitting low-income customers. JSA supports DOEE’s recommendation to develop rules addressing interconnection costs. JSA acknowledged that the Commission has established a working group and tasked it with developing CREF-specific rules, highlighting expressed concerns regarding system upgrade costs. OPC does not oppose DOEE’s recommendations, including the proposal to waive the \$300 processing fee; however, OPC notes that DOEE did not propose specific language to address its concerns regarding allocation of distribution upgrade cost. OPC also asserted that the proposed changes to Subsection 4008.13, specifically the inclusion of the concept of a “post-upgrade reimbursement” for allocating system upgrade costs paid for by the interconnection customer, lacks clarity and “needs further study.”⁸⁵ Therefore, OPC recommends that this language be removed from the rule “until the Commission can provide a detailed plan about how this post-reimbursement process will work.”⁸⁶

48. In response, Pepco asserts that the costs issues identified by DOEE and OPC, including the \$300 processing fee in Subsection 4003.2, should be explored in the context of the working group process established by the Commission.

49. The Commission agrees with Pepco. We believe that the collaborative working group setting established is the best forum to address stakeholder concerns. Order No. 19676, established the RM9 NEM Working group with the specific purpose of addressing the CREF-related interconnection cost issues raised by commenters, like DOEE, in this proceeding. The Commission convened the first RM9 NEM Working Group meeting on December 7, 2018, and has scheduled the second meeting for February 7, 2019. Therefore, we hereby direct the RM9 NEM Working Group to also consider the issues raised by DOEE, JSA, and OPC here in their discussions regarding other CREF-related issues. We expect that the working group will propose

⁸⁴ DOEE’s Initial Comments at 9.

⁸⁵ OPC’s Initial Comments at 6-7.

⁸⁶ OPC’s Initial Comments at 7.

rule changes, if necessary, to better facilitate CREF interconnections, including addressing any barriers to interconnection caused by costs, like the \$300 Pre-Application Report fee. Therefore, at this time, we decline to make any further changes to the small generator interconnection rules and will revisit these cost issues once we have the working group's recommendations.

THEREFORE, IT IS ORDERED THAT:

50. The attached amendments to Chapter 40, "District of Columbia Small Generator Interconnection Rules" of Title 15 (Public Utilities and Cable Television) of the District of Columbia Municipal Regulations are hereby **ADOPTED**, effective upon the date of publication of the Notice of Final Rulemakings in the *D.C. Register*;

51. In accordance with paragraphs 41-42 of this Order, the Potomac Electric Power Company is directed to file a revised Change Notice in the *Formal Case No. 1050* docket within 30 days of the date of this Order;

52. In accordance with paragraphs 45-46 of this Order, the Commission also directs consideration of the Potomac Electric Power Company's hosting capacity assessment methodology to the non-wires alternatives working group established by Order No. 19432 in *Formal Case No. 1130*; and

53. The RM9 Net Energy Metering Working Group is directed to consider the issues raised in paragraphs 47-49 of this Order in their discussions regarding community renewable energy facilities and include recommendations for Commission action in their final working group report.

A TRUE COPY:

BY DIRECTION OF THE COMMISSION:



CHIEF CLERK:

**BRINDA WESTBROOK-SEDGWICK
COMMISSION SECRETARY**

ATTACHMENT A

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

NOTICE OF FINAL RULEMAKING

RM-40-2017-01, 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

1. The Public Service Commission of the District of Columbia (“Commission”), pursuant to its authority under D.C. Official Code §§ 34-301, 34-302, 34-802, and 34-1516 (“D.C. Code”) and in accordance with D.C. Code § 2-505,¹ hereby gives notice of its intent to amend Chapter 40, “District of Columbia Small Generator Interconnection Rules.” The changes presented in this Notice of Final Rulemaking (NOFR) shall become effective upon publication in the *D.C. Register*.

2. On September 21, 2018, the Commission issued the Third NOPR in this matter.² The First NOPR was published on February 17, 2017, and the Second NOPR was published on October 6, 2017.³ The proposed amendments in the Third NOPR to Section 4000 addressed: (a) the enactment of the Renewable Portfolio Standard Expansion Amendment Act of 2016,⁴ which increases the size of solar facilities qualified for solar renewable energy credits in D.C.; (b) the need for adding a deadline for the Authorization to Operate as discussed in the merger commitments; (c) the evolution of best practice of interconnection of small generators over time; and (d) amendments to Institute of Electrical and Electronics Engineers (“IEEE”) 1547 and the rapidly evolving nature of interconnection rules. Additionally, the proposed amendments contained several areas of significant changes, including, but not limited to the following: (1) integration of a Pre-Application report that helps developers identify more accommodating sites for installation; (2) updating several parts of the interconnection criteria; incorporating a Supplemental Review Process; (3) adding an Applicant Options Meeting prior to consideration as a Level 4 application; and (4) updating the capacity size limit and other criteria for each level of review. Also, the proposed amendments introduced compressed timelines in a number of areas of

¹ D.C. Code §§ 34-301 and 302 (2012 Repl.); D.C. Code § 34-1516 (2012 Repl.); D.C. Code § 2-505 (a) (2016 Repl.) and D.C. Code § 34-802 (2012 Repl.).

² 65 D.C. Reg. 9763-9799 (September 21, 2018).

³ 64 D.C. Reg. 1753-1817 (February 17, 2017); 64 D.C. Reg. 9930-9993 (October 6, 2017).

⁴ Renewable Portfolio Standard Expansion Amendment Act of 2016, D.C. Law 21-154 (October 8, 2016).

the interconnection process and have incorporated a deadline for the Authorization to Operate timeline.

3. Comments were received on the Third NOPR between October 22, 2018 and November 6, 2018. In response to the comments filed, the Commission made non-substantive changes in this final rulemaking clarifying application of the rules and correcting language and/or grammatical errors. As none of the changes were substantive in nature, the Commission issued Order No. 19795 on January 9, 2019, adopting the attached rules becoming effective upon publication of this NOFR in the *D.C. Register*.

Chapter 40, DISTRICT OF COLUMBIA SMALL GENERATOR INTERCONNECTION RULES of Title 15 DCMR, PUBLIC UTILITIES AND CABLE TELEVISION, is amended to read as follows:

**CHAPTER 40 DISTRICT OF COLUMBIA SMALL GENERATOR
INTERCONNECTION RULES**

Section

4000	Purpose and Applicability
4001	Interconnection Requests, Fees, and Forms
4002	Applicable Standards
4003	Interconnection Review Levels
4004	Level 1 Interconnection Reviews
4005	Level 2 Interconnection Reviews
4006	Level 3 Interconnection Reviews
4007	Level 4 Interconnection Reviews
4008	Technical Requirements
4009	Disputes
4010	Waiver
4011	Supplemental Review
4012	Applicant Options Meeting
4013-4098	[Reserved]
4099	Definitions

4000 PURPOSE AND APPLICABILITY

4000.1 This chapter establishes the District of Columbia Small Generator Interconnection Rules (“DSGIR”) which apply to facilities satisfying the following criteria:

- (a) The total Nameplate Capacity of the Small Generator Facility is equal to or less than twenty (20) megawatts (“MW”).
- (b) The Small Generator Facility is not subject to the interconnection requirements of PJM Interconnection.

- (c) The Small Generator Facility is designed to operate in parallel with the Electric Distribution System.

4001 INTERCONNECTION REQUESTS, FEES, AND FORMS

- 4001.1 Interconnection customers seeking to interconnect a Small Generator Facility shall submit an Interconnection Request using a standard form approved by the Commission to the Electric Distribution Company (“EDC”) that owns the Electric Distribution System to which interconnection is sought. The EDC shall establish processes for accepting Interconnection Requests electronically.
- 4001.2 The Commission shall determine the appropriate interconnection fees, and the fees shall be posted on the EDC’s website and listed in the EDC’s tariffs. There shall be no application fee for submitting Level 1 Interconnection Request.
- 4001.3 In circumstances where standard forms and agreements are used as part of the interconnection process defined in this document, electronic versions of those forms shall be approved by the Commission and posted on the EDC’s website. The EDC’s Interconnection Request forms shall be provided in a format that allows for electronic entry of data.
- 4001.4 The EDC shall allow Interconnection Request to be submitted through the EDC’s website. The EDC shall allow electronic signatures to be used for Interconnection Request.
- 4001.5 In accordance with Subsection 4003.2 herein, Interconnection Customers may request an optional Pre-Application Report from the EDC to get information about the Electric Distribution System conditions at their proposed Point of Common Coupling without submitting a completed Interconnection Request form.

4002 APPLICABLE STANDARDS

- 4002.1 Unless waived by the EDC, a Small Generator Facility must comply with the following standards, as applicable:
 - (a) Institute of Electrical and Electronics Engineers (“IEEE”) Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems for Generating Facilities up to 20 MW in size;
 - (b) IEEE 1547.1 Standard for Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems;
 - (c) Underwriters Laboratories (“UL”) 6142 Standard for Small Wind Turbine Systems; and

- (d) UL 1741 Standard for Inverters, Converters and Controllers for Use in Independent Power Systems. UL 1741 compliance must be recognized or Certified by a Nationally Recognized Testing Laboratory as designated by the U.S. Occupational Safety and Health Administration. Certification of a particular model or a specific piece of equipment is sufficient. It is also sufficient for an inverter built into a Generating Facility to be recognized as being UL 1741 compliant by a Nationally Recognized Testing Laboratory.

4002.2-4002.4 [RESERVED]

4002.5 The Interconnection Equipment shall meet the requirements of the most current approved version of each document listed in Subsection 4002.1, as amended and supplemented at the time the Interconnection Request is submitted.

4002.6 Nothing herein shall preclude the need for an on-site Witness Test or operational test by the Interconnection Customer.

4003 INTERCONNECTION REVIEW LEVELS

4003.1 The EDC shall review Interconnection Requests using one (1) or more of the four (4) levels of review procedures established by this chapter. The EDC shall first use the level of agreement specified by the Interconnection Customer in the Interconnection Request form. If a Small Generator Facility fails a screen at any level, the EDC may elect to complete the evaluation at the current level, if safety and reliability are not adversely impacted, or at the next appropriate level. The EDC may not impose additional requirements not specifically authorized unless the EDC and the Interconnection Customer mutually agree to do so in writing.

4003.2 If an Interconnection Customer requests a Pre-Application Report from the EDC, the request shall include:

- (a) Contact information (name, address, phone and email).
- (b) A proposed Point of Common Coupling, including latitude and longitude, site map, street address, utility equipment number (*e.g.*, pole number), meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Common Coupling.
- (c) Generation technology and fuel source (if applicable).
- (d) A three hundred dollar (\$300) non-refundable processing fee.

4003.3 For each Pre-Application Report requested, which includes the requisite information and fee, the EDC shall furnish a report, within ten (10) business days of receipt of the completed Pre-Application Report request, which:

- (a) Advises the Interconnection Customer that the existence of “Available Capacity” in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review procedures.
- (b) Informs the Interconnection Customer that the Electric Distribution System is dynamic and subject to change.
- (c) Informs the Interconnection Customer that data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.
- (d) Includes the following information, if available:
 - (1) Total Capacity (MW) of substation/area bus or bank and distribution circuit likely to serve proposed Point of Common Coupling.
 - (2) Allocated Capacity (MW) of substation/area bus or bank and distribution circuit likely to serve proposed Point of Common Coupling.
 - (3) Queued Capacity (MW) of substation/area bus or bank and distribution circuit likely to serve proposed Point of Common Coupling.
 - (4) Available Capacity (MW) of substation/area bus or bank and distribution circuit most likely to serve proposed Point of Common Coupling.
 - (5) Whether the proposed Small Generator Facility is located on an area, spot or radial network.
 - (6) Substation nominal distribution voltage or transmission nominal voltage if applicable.
 - (7) Nominal distribution circuit voltage at the proposed Point of Common Coupling.
 - (8) Approximate distribution circuit distance between the proposed Point of Common Coupling and the substation.
 - (9) Relevant Line Section(s) peak load estimate, and minimum load data, when available.

- (10) Number of protective devices and number of voltage regulating devices between the proposed Point of Common Coupling and the substation/area.
- (11) Whether or not three-phase power is available at the proposed Point of Common Coupling and/or distance from three-phase service.
- (12) Limiting conductor rating from proposed Point of Common Coupling to the electrical distribution substation.
- (13) Based on proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- (14) The Pre-Application Report need only include pre-existing data. The EDC is not obligated in its preparation of a Pre-Application Report to conduct a study or other analysis of the proposed project in the event that data is not available. If the EDC cannot complete all or some of a Pre-Application Report due to lack of available data, the EDC will provide the potential Applicant with a Pre-Application Report that includes the information that is available and identify the information that is unavailable. Notwithstanding any of the provisions of this Section, the EDC shall, in good faith, provide Pre-Application Report data that represents the best available information at the time of reporting.

- (e) As an alternative to information required pursuant to § 4003.3(d), the EDC may elect to perform a power flow-based study providing the Interconnection Customer with the maximum size DER that can be installed at a specified location without Distribution System Upgrades and the constraint encountered precluding installation of a larger system without upgrades. EDC shall make available, upon request, a copy of its power flow-based study for each Interconnection Customer to the Commission.

4004 LEVEL 1 INTERCONNECTION REVIEWS

4004.1 For Level 1 Interconnection Review, the EDC shall use Level 1 procedures for evaluation of all Interconnection Requests to connect inverter-based small generation facilities.

4004.2 For Level 1 Adverse System Impact screens, the EDC shall evaluate the potential for Adverse System Impacts using the following screens, which must be satisfied:

- (a) The Small Generator Facility has a Nameplate Capacity of twenty (20) kW or less.
- (b) For interconnection of a proposed Small Generator Facility to a Line Section on a Radial Distribution Circuit, the aggregated generation on the Line Section, including the proposed Small Generator Facility and all other generator facilities capable of coincidental export of energy on the Line Section, shall not exceed the anticipated minimum load on the Line Section, as determined by the results of a power flow-based study performed by the EDC to evaluate the impact of the proposed Small Generator Facility. If such results are unavailable, the aforementioned aggregate generating capacity shall not exceed fifteen percent (15%) of the Line Section's annual peak load as most recently measured at the substation or calculated for the Line Section. Should the EDC have previously identified the aforementioned Line Section as exceeding fifteen percent of the Line Section's annual peak load, the EDC shall use its best efforts to complete a power-flow based study to evaluate the impact of the proposed Small Generator Facility as described herein. The EDC shall not fail the Small Generator Facility based solely on the application of the 15 percent peak load limitation if the EDC has valid power flow-based study results that can be used to evaluate the impact of the proposed Small Generator Facility.
- (c) When a proposed Small Generator Facility is to be interconnected on a single-phase shared Secondary Line, the aggregate generation capacity on the shared Secondary Line, including the proposed Small Generator Facility, may not exceed twenty (20) kW.
- (d) When a proposed Small Generator Facility is single-phase and is to be interconnected on a transformer center tap neutral of a two hundred forty (240) volt service, its addition may not create an imbalance between the two sides of the 240 volt service of more than twenty percent (20%) of the nameplate rating of the service transformer.
- (e) For interconnection of a Small Generator Facility within a Spot Network or Area Network, the aggregate generating capacity including the Small Generator Facility may exceed fifty percent (50%) of the network's anticipated minimum load if the EDC determines that safety and reliability are not adversely impacted. If solar energy small generator facilities are used, only the anticipated daytime minimum load shall be considered. The EDC may select any of the following methods to determine anticipated minimum load:
 - (1) The network's measured minimum load in the previous year, if available;
 - (2) Five percent (5%) of the network's maximum load in the previous year;

- (3) The Interconnection Customer's good faith estimate, if provided; or
 - (4) The EDC's good faith estimate, if provided in writing to the Interconnection Customer, along with the reasons why the EDC considered the other methods to estimate minimum load inadequate.
- (f) Construction of facilities by the EDC on its own system is not required in order to accommodate the Small Generator Facility.
 - (g) The EDC may use results from a valid power flow-based study performed to evaluate the impact of the proposed Small Generator Facility, provided such results are not used to fail any of the Subsection § 4004.2 (c), (d), or (e) screens. EDC shall make available upon request a copy of its power flow-based study for each applicant to the Commission.
 - (h) If a Small Generator Facility fails a Level 1 Adverse System Impact screen, the EDC may elect to complete the evaluation at Level 1, if safety and reliability are not adversely impacted, or at the next appropriate level.

4004.3

The Level 1 Interconnection Review shall be conducted in accordance with the following procedures:

- (a) The EDC shall, within five (5) business days after receipt of Part 1 of the Interconnection Request, notify the Interconnection Customer in writing or by electronic mail of the review results, which shall indicate that the Interconnection Request is complete or incomplete, and what materials, if any, are missing.
- (b) When an Interconnection Request is complete, the EDC shall assign the request a Queue Position.
- (c) Within five (5) business days after the EDC acknowledges receipt of a complete Interconnection Request, the EDC shall notify the Interconnection Customer of the Level 1 Adverse System Impact screening results. If the proposed interconnection meets all of the applicable Level 1 Adverse System Impact screens or the EDC determines that the Small Generator Facility can be interconnected safely and reliably to its system, the EDC shall provide the Interconnection Customer with an Approval to Install.
- (d) Unless extended by mutual agreement of the Interconnection Customer and the EDC, within six (6) months of receiving an Approval to Install or six (6) months from the completion of any upgrades, whichever is later, the Interconnection Customer shall provide the EDC a completed Level 1 PART II - Small Generator Facility Interconnection Certificate of Completion Form, including the signed inspection certificate.

- (e) The EDC may, within ten (10) business days of receiving a completed Level 1 PART II – Small Generator Facility Interconnection Certificate of Completion Form and the inspection certificate from the Interconnection Customer, conduct a Witness Test at a time mutually agreeable to the parties. If the Witness Test fails to reveal that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes, the EDC shall offer to redo the Witness Test at the Interconnection Customer’s expense at a time mutually agreeable to the parties. If the EDC determines that the Small Generator Facility fails the inspection it must provide a written explanation detailing the reasons and any standards violated. If the EDC does not perform the Witness Test within ten (10) business days or other time as is mutually agreed to by the parties, the Witness Test is deemed waived.
- (f) The EDC shall provide the Interconnection Customer with the Authorization to Operate within twenty (20) business days of receiving a completed Level 1 PART II - Small Generator Facility Interconnection Certificate of Completion Form, including the signed inspection certificate. An Interconnection Customer may begin interconnected operation of a Small Generator Facility provided that there is an Interconnection Agreement in effect, the EDC has received proof of the electrical code official’s approval, the Small Generator Facility has passed any Witness Test by the EDC, and the EDC has issued the Authorization to Operate
- (g) The EDC may require photographs of the site, Small Generator Facility components, meters or any other aspect of the Interconnection Facilities as part of the Level 1 Interconnection Review process, provided that failure to provide a photo in a timely manner will not be a reason for the EDC to deem an Interconnection Request incomplete.

4004.4 Modifications to proposed Level 1 interconnections shall be treated in the following manner:

- (a) If the proposed interconnection requires only the addition of Interconnection Facilities to the Electric Distribution System, a non-binding good faith cost estimate and construction schedule for such upgrades, along with an Approval to Install, shall be provided within fifteen (15) business days after notification of the Level 1 Interconnection Review results.
- (b) If the Interconnection Request requires more than the addition of Interconnection Facilities to the Electric Distribution System, the EDC may elect to either provide a non-binding good faith cost estimate and construction schedule for such upgrades within thirty (30) business days after notification of the Level 1 Interconnection Review results, or the EDC may notify the Interconnection Customer that the EDC will need to

complete a Facilities Study under Subsection 4007.2, paragraphs (d)(3) (B), (C), (D) and (E) to determine the necessary Distribution System Upgrades.

4004.5 **[RESERVED]**

4004.6 The EDC, at its sole option, may approve the interconnection provided that such approval is consistent with safety and reliability. If the EDC cannot determine that the Small Generator Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the EDC shall provide the Interconnection Customer with detailed information on the reason(s) for failure in writing. In addition, the EDC shall either:

- (a) Notify Interconnection Customer that the EDC is continuing to evaluate the small generating facility under Supplemental Review if the EDC concludes that the Supplemental Review might determine that the Small Generator Facility could continue to qualify for interconnection pursuant to Level 2; or
- (b) Offer to continue evaluating the Interconnection Request under Level 4.

4004.7 If, on an annual basis, the EDC fails to issue at least ninety percent (90%) of All Authorizations to Operate in the Level 1 interconnection process within the twenty (20) business days as required in § 4004.3(f), it shall be required to develop a corrective action plan.

4004.8 The corrective action plan shall describe the cause(s) of the EDC's non-compliance with Subsection 4004.7, describe the corrective measure(s) to be taken to ensure that the standard is met or exceeded in the future, and set a target date for completion of the corrective measure(s).

4004.9 Progress on current corrective action plans shall be included in the electric distribution utility's Small Generator Interconnection Annual Report.

4004.10 The EDC shall report the actual performance of compliance with 15 DCMR § 4004.7 during the reporting period in the Small Generator Interconnection Annual Report of the following year.

4005 LEVEL 2 INTERCONNECTION REVIEWS

4005.1 For a Level 2 Interconnect Review, the EDC shall use the Level 2 procedures for an Interconnection Request.

4005.2 For Level 2 Adverse System Impact screens, the EDC shall evaluate the potential or Adverse System Impacts using the following screens, which must be satisfied:

- (a) The Small Generator Facility Nameplate Capacity rating does not exceed the limits identified in the table below, which vary according to the voltage of the line at the proposed Point of Common Coupling. Small Generator Facilities located within two and a half (2.5) miles of a substation and on a main distribution line with minimum six hundred (600)-amp capacity are eligible for Level 2 Interconnection Review under higher thresholds.

Line Capacity	Level 2 Eligibility	
	Regardless of location	On \geq 600 amp line and \leq 2.5 miles from substation
\leq 4 kV	< 1 MW	< 2 MW
4.1 kV – 14 kV	< 2 MW	< 3 MW
15 kV – 30 kV	< 3 MW	< 4 MW
31 kV – 60 kV	\leq 4 MW	\leq 5 MW

- (b) For interconnection of a proposed Small Generator Facility to a Radial Distribution Circuit, the Small Generator Facility aggregated with all other generation capable of coincidental exporting energy on the Line Section may not exceed the anticipated minimum load on the Line Section, as determined by the results of a power flow-based study performed by the EDC to evaluate the impact of the proposed Small Generator Facility. If such results are unavailable, the aforementioned aggregate generating capacity shall not exceed fifteen percent (15%) of the Line Section annual peak load, as most recently measured at the substation or calculated for the Line Section. Should the EDC have previously identified the aforementioned Line Section as exceeding fifteen percent of the Line Section's annual peak load, the EDC shall use its best efforts to complete a power-flow based study to evaluate the impact of the proposed Small Generator Facility as described herein. The EDC shall not fail the Small Generator Facility based solely on the application of the 15 percent peak load limitation if the EDC has valid power flow-based study results that can be used to evaluate the impact of the proposed Small Generator Facility.
- (c) For interconnection of a proposed Small Generator Facility within a Spot or Area Network, the proposed Small Generator Facility shall utilize an inverter-based equipment package and use a minimum import relay or other protective scheme that will ensure power imported from the EDC to the network will, during normal EDC operations, remain above twenty percent (20%) of the minimum load on the network transformer based on historical data, or will remain above an import point reasonably set by the EDC in good faith. For interconnection of a proposed small generation facility within an Area Network, the proposed Small Generator Facility shall utilize an inverter-based equipment package and adhere to a maximum aggregate export level of eighty percent (80%) of the generation level that would cause reverse flow on a network transformer, or will remain below an export point

reasonably set by the EDC in good faith. At the EDC’s discretion, the requirement for minimum import relays or other protective schemes may be waived.

- (d) The proposed Small Generator Facility, in aggregation with other generation on the distribution circuit, may not contribute more than ten percent (10%) to the distribution circuit’s maximum Fault Current at the point on the high voltage (primary) level nearest the Point of Common Coupling.
- (e) The proposed Small Generator Facility, in aggregate with other generation on the distribution circuit, may not cause any distribution protective devices and equipment (including substation breakers, fuse cutouts, and line reclosers), or EDC customer equipment on the Electric Distribution System, to exceed ninety percent (90%) of the short circuit interrupting capability. The Interconnection Request may not receive approval for interconnection on a circuit that already exceeds 90% of the short circuit interrupting capability.
- (f) The proposed Small Generator Facility’s Point of Common Coupling may not be on a transmission line.
- (g) The Small Generator Facility complies with the applicable type of interconnection, based on the table below. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the EDC’s Electric Distribution System due to a loss of ground during the operating time of any anti-islanding function. This screen does not apply to small generator facilities with a gross rating of 11 kVA or less.

Primary Distribution Line Configuration	Type of Interconnection to be Made to the Primary Circuit	Results/Criteria
Three-phase, three-wire	Any type	Pass Screen
Three-phase, four-wire	Single-phase, line-to-neutral	Pass Screen
Three-phase, four-wire (For any line that has such a section, or mixed three wire and four wire)	All Others	To pass, aggregate Small Generator Facility Nameplate Capacity must be less than or equal

		to 10% of Line Section peak load
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- (h) When the proposed Small Generator Facility is to be interconnected on single-phase shared Secondary Line, the aggregate generation capacity on the shared Secondary Line, including the proposed Small Generator Facility, shall not exceed sixty-five percent (65%) of the transformer nameplate power rating.
- (i) When a proposed Small Generator Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240 volt service, its addition may not create an imbalance between the two sides of the 240-volt service of more than twenty percent (20%) of the nameplate rating of the service transformer.
- (j) A Small Generator Facility, in aggregate with other generation interconnected to the distribution low-voltage side of a substation transformer feeding the electric distribution circuit where the Small Generator Facility proposes to interconnect, may not exceed 20MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (*e.g.* three or four transmission voltage level buses from the Point of Common Coupling), or the proposed Small Generator Facility shall not have interdependencies, known to the EDC, with earlier-queued Interconnection Requests.
- (k) Except as permitted by an additional review in Level 2 procedures, Subsection 4005.7, no construction of facilities by the EDC on its own system shall be required to accommodate the Small Generator Facility.
- (l) The EDC may use results from a valid power flow-based study performed to evaluate the impact of the proposed Small Generator Facility, provided such results are not used to fail any of the Subsection § 4005.2 (c), (d), (e), (f), (g), (h), (i), or (j) screens.
- (m) If a power-flow analysis is performed based on 4005.2 (b) or (l), the EDC shall make available upon request a copy of its power flow-based study for each applicant to the Commission.

4005.3 [RESERVED]

4005.4 The Level 2 Interconnection Review shall be conducted in accordance with the following procedures:

- (a) The EDC shall, within five (5) business days after receipt of Part 1 of the Interconnection Request, acknowledge, in writing or by electronic mail, receipt of the Interconnection Request, indicating whether it is complete or incomplete, and the appropriate application fee.

- (b) When the Interconnection Request is deemed incomplete, the EDC shall provide a written list detailing all information that must be provided to complete the request. The Interconnection Customer shall have ten (10) business days after receipt of the list to revise the Interconnection Request to include the requested information and resubmit the Interconnection Request or request an extension of time to provide such information. If the Interconnection Request is not resubmitted with the requested information within ten (10) days, the Interconnection Request shall be deemed withdrawn. The EDC shall notify the Interconnection Customer within three (3) business days of receipt of a revised Interconnection Request whether the request is complete or incomplete. The EDC may deem the request withdrawn if it remains incomplete.
- (c) When an Interconnection Request is complete, the EDC shall assign a Queue Position. The Queue Position of an Interconnection Request shall be used to determine the cost responsibility necessary for the Small Generator Facilities to accommodate the interconnection. The EDC shall notify the Interconnection Customer about other higher-queued Interconnection Customer Requests that have the potential to impact the cost responsibility.
- (d) Within fifteen (15) business days after the EDC notifies the Interconnection Customer that it has received a completed Interconnection Request, the EDC shall evaluate the Interconnection Request using the Level 2 screening criteria and notify the Interconnection Customer whether the Small Generator Facility meets all of the applicable Level 2 Adverse System Impact screens. If the proposed interconnection meets all of the applicable Level 2 Adverse System Impact screens and the EDC determines that the Small Generator Facility can be interconnected safely and reliably to the Electric Distribution System, the EDC shall provide the Interconnection Customer an Approval to Install. If the Interconnection Request requires no construction of facilities by the EDC on its own system, including any metering or commercial devices, the EDC shall provide an EDC-executed Interconnection Agreement within three (3) business days after notification of Level 2 Interconnection Review results.
- (e) Unless extended by mutual agreement of the Interconnection Customer and the EDC, within twenty-four (24) months of receiving an Approval to Install or six (6) months of completion of any Electric Distribution System Upgrades, whichever is later, the Interconnection Customer shall provide the EDC with the signed Level 2-4 Part II – Small Generator Interconnection Certificate of Completion, including the signed inspection certificate. An Interconnection Customer shall communicate with the EDC no less frequently than every six (6) months regarding the status of a

proposed Small Generator Facility to which an Interconnection Agreement refers.

- (f) The EDC may conduct a Witness Test within ten (10) business days of receiving the completed Level 2-4 Part II – Small Generator Facility Interconnection Certificate of Completion and the signed inspection certificate from the Interconnection Customer, conduct a Witness Test at a time mutually agreeable to the parties. If the Witness Test fails to reveal that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes, the EDC shall offer to redo the Witness Test at the Interconnection Customer's expense at a time mutually agreeable to the parties. If the EDC determines that the Small Generator Facility fails the inspection it must provide a written explanation detailing the reasons and any standards violated. If the EDC does not perform the Witness Test within ten (10) business days or other such time as is mutually agreed to by the parties, the Witness Test is deemed waived.
- (g) An Interconnection Customer may begin interconnected operation of a Small Generator Facility provided that there is an Interconnection Agreement in effect, the EDC has received proof of the electrical code official's approval, the Small Generator Facility has passed any Witness Test by the EDC, and the EDC has issued the Authorization to Operate. Evidence of approval by an electric code official includes a signed inspection certificate.
- (h) The EDC may require photographs of the site, Small Generator Facility components, meters or any other aspect of the Interconnection Facilities as part of the Level 2 Interconnection Review process, provided that failure to provide a photo in a timely manner will not be a reason for the EDC to deem an Interconnection Request incomplete.

4005.5 [RESERVED]

4005.6 Modifications to the Electric Distribution System that are required to interconnect a Small Generation Facility under a Level 2 Interconnection Request shall be treated in the following manner:

- (a) If the Interconnection Request requires only the addition of Interconnection Facilities to the Electric Distribution System, a non-binding good faith cost estimate and construction schedule for such upgrades, along with an Approval to Install, shall be provided within fifteen (15) business days after notification of the Level 2 Interconnection Review results.
- (b) If the Interconnection Request requires more than the addition of Interconnection Facilities to the Electric Distribution System, the EDC may elect to either provide a non-binding good faith cost estimate and

construction schedule for such upgrades within thirty (30) business days after notification of the Level 2 Interconnection Review results, or the EDC may notify the Interconnection Customer that the EDC will need to complete a Facilities Study under Subsection 4007.2, paragraphs (d)(3) (B), (C), (D) and (E) to determine the necessary Distribution System Upgrades and complete the construction.

4005.7 When a Small Generator Facility is not approved under a Level 2 review, the EDC, at its sole option, may approve the Interconnection Request provided such approval is consistent with safety and reliability and shall provide the Interconnection Customer an Approval to Install after the determination. If the EDC cannot determine that the Small Generator Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the EDC shall provide the Interconnection Customer with detailed information on the reason(s) for failure in writing. In addition, the EDC shall either:

- (a) Notify Interconnection Customer that the EDC is continuing to evaluate the Interconnection Request under Supplemental Review if the EDC concludes that the Supplemental Review might determine that the Small Generator Facility could continue to qualify for interconnection pursuant to Level 2; or
- (b) Offer to continue evaluating the Interconnection Request under Level 4.

4006 LEVEL 3 INTERCONNECTION REVIEWS

4006.1 The EDC shall use Level 2 Interconnection Review procedures for evaluating Level 3 Interconnection Requests provided the proposed Small Generator Facility has a Nameplate Capacity rating not greater than 20MW and uses reverse power relays, minimum import relays or other protective devices to assure that power may never be exported from the Small Generator Facility to the EDC's electrical distribution system. An Interconnection Customer proposing to interconnect a Small Generator Facility to a spot or Area Network is not permitted under the Level 3 review process.

4006.2-4006.8 [RESERVED]

4007 LEVEL 4 INTERCONNECTION REVIEWS

4007.1 The EDC shall use the Level 4 Interconnection Review procedures for evaluating Interconnection Requests when:

- (a) The Interconnection Request was not approved under a Level 1, Level 2, or Level 3 Interconnection Review and the Interconnection Customer has submitted a new Interconnection Request for consideration under a Level 4 Interconnection Review or requested that an existing Interconnection

Request already in the EDC's possession be treated as a Level 4 Interconnection Request; and

- (b) The Interconnection Request does not meet the criteria for qualifying for a review under Level 1, Level 2 or Level 3 Interconnection Review procedures.

4007.2 The Level 4 Interconnection Review shall be conducted in accordance with the following process:

- (a) Within five (5) business days from receipt of Part I of an Interconnection Request or transfer of an existing request to a Level 4 Interconnection Request, the EDC shall notify the Interconnection Customer whether or not the request is complete. When the Interconnection Request is deemed not complete, the EDC shall provide the Interconnection Customer with a written list detailing information required to complete the Interconnection Request. The Interconnection Customer shall have twenty (20) business days to revise the Interconnection Request to include the requested information and resubmit the Interconnection Request, or the Interconnection Request shall be considered withdrawn. The parties may agree to extend the time for receipt of the revised Interconnection Request. The EDC shall notify the Interconnection Customer within five (5) business days of receipt of the revised Interconnection Request whether or not the Interconnection Request is complete. The EDC may deem the Interconnection Request withdrawn if it remains incomplete.
- (b) When an Interconnection Request is complete, the EDC shall assign a Queue Position. The Queue Position of an Interconnection Request shall be used to determine the cost responsibility necessary for the facilities to accommodate the interconnection. The EDC shall notify the Interconnection Customer about other higher-queued Interconnection Customers that have the potential to impact the cost responsibility.
- (c) The following procedures shall be followed in performing a Level 4 Interconnection Review:
 - (1) By mutual agreement of the parties, the Scoping Meeting, interconnection feasibility study, interconnection impact study, or Facilities Study provided for in a Level 4 Interconnection Review and discussed in this paragraph may be waived;
 - (2) If agreed to by the parties, a Scoping Meeting shall be held within ten (10) business days, or other mutually agreed to time, after the EDC has notified the Interconnection Customer that the Interconnection Request is deemed complete, or the Interconnection Customer has requested that its Interconnection Request proceed

after failing the requirements of a Level 2 Interconnection Review or Level 3 review. The Scoping Meeting shall take place in person, by telephone, or electronically by a means mutually agreeable to the parties. The purpose of the Scoping Meeting shall be to review the Interconnection Request; existing studies relevant to the Interconnection Request; the conditions at the proposed location including the available Fault Current at the proposed location, the existing peak loading on the lines in the general vicinity of the proposed Small Generator Facility, and the configuration of the distribution line at the proposed Point of Common Coupling; and the results of the Level 1, Level 2 or Level 3 Adverse System Impact screening criteria;

- (3) When the parties agree at a Scoping Meeting that an interconnection feasibility study shall be performed, and if the parties do not waive the interconnection impact study, the EDC shall provide to the Interconnection Customer, no later than five (5) business days after the Scoping Meeting, an Interconnection System Feasibility Study Agreement, including an outline of the scope of the study and a nonbinding good faith estimate of the cost and time to perform the study;
 - (4) When the parties agree at a Scoping Meeting that an interconnection feasibility study is not required, and if the parties agree that an interconnection system impact study shall be performed, the EDC shall provide to the Interconnection Customer, no later than five (5) business days after the Scoping Meeting, an Interconnection System Impact Study Agreement, including an outline of the scope of the study and a nonbinding good faith estimate of the cost to perform the study; and
 - (5) When the parties agree at the Scoping Meeting that an interconnection feasibility study and interconnection system impact study are not required, the EDC shall provide to the Interconnection Customer, no later than five (5) business days after the Scoping Meeting, an Interconnection Facilities Study Agreement including an outline of the scope of the study and a nonbinding good faith estimate of the cost to perform the study.
 - (6) The EDC may elect to perform one or more of these studies concurrently.
- (d) Any required Adverse System Impact studies shall be carried out using the following guidelines:

- (1) An interconnection feasibility study shall include the following analyses and conditions for the purpose of identifying and addressing potential Adverse System Impacts to the EDC's Electric Distribution System that would result from the interconnection:
 - (A) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
 - (B) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
 - (C) Initial review of grounding requirements and system protection;
 - (D) Description and nonbinding estimated cost of facilities required to interconnect the Small Generator Facility to the EDC's Electric Distribution System in a safe and reliable manner; and
 - (E) Additional evaluations, at the expense of the Interconnection Customer, when an Interconnection Customer requests that the interconnection feasibility study evaluate multiple potential Points of Common Coupling.
- (2) An interconnection system impact study shall evaluate the impacts of the proposed interconnection on both the safety and reliability of the EDC's Electric Distribution System. The study shall identify and detail the Adverse System Impacts that result when a Small Generator Facility is interconnected without project or system modifications, focusing on the Adverse System Impacts identified in the interconnection feasibility study or potential impacts including those identified in the Scoping Meeting. The interconnection system impact study shall consider all generating facilities that, on the date the interconnection system impact study is commenced, are directly interconnected with the EDC's Electric Distribution System, have a pending higher Queue Position to interconnect to the system, or have a signed Interconnection Agreement.
 - (A) A distribution interconnection system impact study shall be performed when a potential Electric Distribution System Adverse System Impact is identified in the interconnection feasibility study. The EDC shall send the Interconnection Customer an Interconnection System Impact Study Agreement within five (5) business days of transmittal of the interconnection feasibility study report. The agreement shall

include an outline of the scope of the study and a good faith estimate of the cost to perform the study. The impact study shall include:

- (i) A load flow study;
- (ii) Identification of Affected Systems;
- (iii) An analysis of equipment interrupting ratings;
- (iv) A protection coordination study;
- (v) Voltage drop and flicker studies;
- (vi) Protection and set point coordination studies;
- (vii) Grounding reviews; and
- (viii) Impact on system operation.

(B) An interconnection system impact study shall consider the following criteria:

- (i) A short circuit analysis;
- (ii) A stability analysis;
- (iii) Alternatives for mitigating Adverse System Impacts on Affected Systems;
- (iv) Voltage drop and flicker studies;
- (v) Protection and set point coordination studies; and
- (vi) Grounding reviews.

(C) The final interconnection system impact study shall provide the following:

- (i) The underlying assumptions of the study;
- (ii) The results of the analyses;
- (iii) A list of any potential impediments to providing the requested interconnection service;
- (iv) Required distribution upgrades; and
- (v) A nonbinding good faith estimate of cost and time to construct any required distribution upgrades.

(D) The parties shall use an Interconnection System Impact Study Agreement approved by the Commission.

(3) The Facilities Study shall be conducted as follows:

(A) Within five (5) business days of completion of the interconnection system impact study, the EDC shall transmit a report to the Interconnection Customer with an Interconnection Facilities Study Agreement, which includes an outline of the scope of the study and a nonbinding good faith estimate of the cost and time to perform the study;

- (B) The Facilities Study shall estimate the cost of the equipment, engineering, procurement and construction work including overheads needed to implement the conclusions of the interconnection feasibility study and the interconnection system impact study to interconnect the Small Generator Facility. The Facilities Study shall identify:
 - (i) The electrical switching configuration of the equipment, including transformer, switchgear, meters and other station equipment;
 - (ii) The nature and estimated cost of the EDC's Interconnection Facilities and Distribution System Upgrades necessary to accomplish the interconnection; and
 - (iii) An estimate of the time required to complete the construction and installation of the facilities;
 - (C) The parties may agree to permit an Interconnection Customer to separately arrange for a third party to design and construct the required Interconnection Facilities. The EDC may review the design of the facilities under the Interconnection Facilities Study Agreement. When the parties agree to separately arrange for design and construction and to comply with security and confidentiality requirements, the EDC shall make all relevant information and required specifications available to the Interconnection Customer to permit the Interconnection Customer to obtain an independent design and cost estimate for the facilities, which shall be built in accordance with the specifications;
 - (D) Upon completion of the Facilities Study and with the agreement of the Interconnection Customer to pay for the Interconnection Facilities and Distribution System Upgrades identified in the Facilities Study, the EDC shall issue the Approval to Install; and
 - (E) The parties shall use an Interconnection Facilities Study Agreement approved by the Commission.
- (e) Upon completion or waiver of procedures defined in 4007.2 (c) as mutually agreed by the parties, and the EDC determines that the Small Generator Facility can be interconnected safely and reliably to the Electric Distribution System, the EDC shall provide the Interconnection Customer with an

Approval to Install. If the Interconnection Request is denied, the EDC shall provide a written explanation;

- (f) When Distribution System Upgrades are required, the interconnection of the Small Generator Facility shall proceed according to milestones agreed to by the parties in the Interconnection Agreement. The Authorization to Operate may not be issued until:
 - (1) The milestones agreed to in the Interconnection Agreement are satisfied;
 - (2) The Small Generator Facility is approved by electric code officials with jurisdiction over the interconnection;
 - (3) The Interconnection Customer provides a Certificate of Completion to the EDC. Completion of local inspections may be designated on inspection forms used by local inspecting authorities; and
 - (4) There is a successful completion of the Witness Test per the terms and conditions found in the Standard Agreement for Interconnection of Small Generator Facilities, unless waived.
- (g) The EDC may require photographs of the site, Small Generator Facility components, meters or any other aspect of the Interconnection Facilities as part of the Level 4 Interconnection Review process, provided that failure to provide a photo in a timely manner will not be a reason for the EDC to deem an Interconnection Request incomplete.

4007.3 An interconnection system impact study is not required when the interconnection feasibility study concludes there is no Adverse System Impact, or when the study identifies an Adverse System Impact, but the EDC is able to identify a remedy without the need for an interconnection system impact study.

4007.4 The parties shall use a form of Interconnection Feasibility Study Agreement approved by the Commission.

4008 TECHNICAL REQUIREMENTS

- 4008.1 Unless waived by the EDC, a Small Generator Facility must comply with the technical standards listed in Subsection 4002.1, as applicable. IEEE 1547.2 (2008), “Application Guide for IEEE Standard 1547,” IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems and the PJM Interconnection Planning Manual 14A Attachment E, which is available at: <https://www.pjm.com/~media/documents/manuals/m14a.ashx>, shall be used as a guide (but not a requirement) to detail and illustrate the interconnection protection requirements that are provided in IEEE Standard 1547.
- 4008.2 When an Interconnection Request is for a Small Generator Facility that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Common Coupling, the Interconnection Request shall be evaluated on the basis of the aggregate Nameplate Capacity of multiple devices.
- 4008.3 When an Interconnection Request is for an increase in capacity for an existing Small Generator Facility, the Interconnection Request shall be evaluated on the basis of the new total Nameplate Capacity of the Small Generator Facility.
- 4008.4 The EDC shall maintain records of the following for a minimum of three (3) years:
- (a) The total number of and the Nameplate Capacity of the Interconnection Requests received, approved and denied under Level 1, Level 2, Level 3 and Level 4 reviews;
 - (b) The number of Interconnection Requests that were not processed within the timelines established in this rule;
 - (c) The number of Scoping Meetings held and the number of feasibility studies, impact studies, and Facility Studies performed and the fees charged for these studies;
 - (d) The justifications for the actions taken to deny Interconnection Requests; and
 - (e) Any special operating requirements required in Interconnection Agreements that are not part of the EDC’s written and published operating procedures applicable to small generator facilities.
- 4008.5 The EDC shall provide a report to the Commission containing the information required in Subsection 4008.4, paragraphs (a)-(c) within ninety (90) calendar days of the close of each year.
- 4008.6 The EDC shall designate a contact person and contact information on its website and the Commission’s website for submission of all Interconnection Requests and

from whom information on the Interconnection Request process and the EDC's Electric Distribution System can be obtained regarding a proposed project. The information shall include studies and other materials useful to an understanding of the feasibility of interconnecting a Small Generator Facility at a particular point on the EDC's Electric Distribution System, except to the extent that providing the materials would violate security requirements or confidentiality agreements, or otherwise deemed contrary to District or federal law/regulations. In appropriate circumstances, the EDC may require a confidentiality agreement prior to release of information.

- 4008.7 When an Interconnection Request is deemed complete, a modification other than a minor equipment modification that is not agreed to in writing by the EDC, shall require submission of a new Interconnection Request.
- 4008.8 When an Interconnection Customer is not currently a customer of the EDC at the proposed site, the Interconnection Customer, upon request from the EDC, shall provide proof of site control evidenced by a property tax bill, deed, lease agreement, or other legally binding contract.
- 4008.9 To minimize the cost of interconnecting multiple small generator facilities, the EDC or the Interconnection Customer may propose a single Point of Common Coupling for multiple small generator facilities located at a single site. If the Interconnection Customer rejects the EDC's proposal for a single Point of Common Coupling, the Interconnection Customer shall pay the additional cost, if any, of providing a separate Point of Common Coupling for each Small Generator Facility. If the EDC rejects the customer's proposal for a single Point of Common Coupling without providing a written technical explanation, the EDC shall pay the additional cost, if any, of providing a separate Point of Common Coupling for each Small Generator Facility.
- 4008.10 Small generator facilities shall be capable of being isolated from the EDC. For all small generator facilities interconnecting to a Primary Line, the isolation shall be by means of a lockable, visible-break isolation device accessible by the EDC. For all small generator facilities interconnecting to a Secondary Line, the isolation shall be by means of a lockable isolation device whose status is clearly indicated and is accessible by the EDC. The isolation device shall be installed, owned and maintained by the owner of the small generation facility and located between the small generation facility and the Point of Common Coupling. A Draw-out Type Circuit Breaker with a provision for padlocking at the draw-out position can be considered an isolation device for purposes of this requirement.
- 4008.11 The Interconnection Customer may elect to provide the EDC access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise readily accessible to the EDC, by installing a lockbox provided by the EDC that shall provide ready access to the isolation device. The Interconnection Customer shall install the lockbox in a location that is readily accessible by the

EDC, and the Interconnection Customer shall permit the EDC to affix a placard in a location of its choosing that provides clear instructions to the EDC's operating personnel on access to the isolation device. In the event that the Interconnection Customer fails to comply with the terms of this subsection and the EDC needs to gain access to the isolation device, the EDC shall not be held liable for any damages resulting from any necessary EDC action to isolate the Interconnection Customer.

4008.12 Any metering necessitated by a small generator interconnection shall be installed, operated and maintained in accordance with applicable tariffs. Any such metering requirements shall be clearly identified as part of the Interconnection Agreement executed by the Interconnection Customer and the EDC. The EDC is not responsible for installing, operating, or maintaining customer-owned meters.

4008.13 The EDC shall design, procure, construct, install, and own any Distribution System Upgrades. The actual cost of the Distribution System Upgrades, including overheads, shall be directly assigned to the Interconnection Customer. The Interconnection Customer may be entitled to financial contribution from any other EDC customers who may in the future utilize the Distribution System Upgrades paid for by the Interconnection Customer. Such contributions shall be governed by the rules, regulations, and decisions of the Commission.

4008.14 [RESERVED]

4008.15 The Interconnection Customer shall design its Small Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of Common Coupling at a power factor within the power factor range required by the EDC's applicable tariff for a comparable load customer. The EDC may also require the Interconnection Customer to follow a voltage or VAR schedule if such schedules are applicable to similarly situated generators in the control area on a comparable basis and have been approved by the Commission. The specific requirements for meeting a voltage or VAR schedule shall be clearly specified in Attachment 3 of the "District of Columbia Small Generator Interconnection Rule Level 2-4 Standard Agreement for Interconnection of Small Generator Facilities". Under no circumstance shall these additional requirements for reactive power or voltage support exceed the normal operating capabilities of the Small Generator Facility.

4008.16 For retail interconnection non-exporting Energy Storage devices, the load aspects of the storage devices will be treated the same as other load from customers, based on incremental net load.

4008.17 Interconnection of Energy Storage facilities should comply with IEEE standard 1547 technical & test specifications and requirements.

4008.18 The Energy Storage overcurrent protection (charge/discharge) ratings from inverter nameplate shall not exceed EDC capabilities.

- 4008.19 In front of the meter Energy Storage exporting systems will be subject to Level 4 review requirements.
- 4008.20 When a Microgrid reconnects to the EDC, the Microgrid must be synchronized to the grid, matching: (1) voltage, (2) frequency, and (3) phase angle. This should require an asynchronous interconnection.
- 4008.21 At all interconnection levels, the power conversion system performing energy conversion/control at the Point of Common Coupling must be equipped to communicate system characteristics over secured EDC protocol.
- 4008.22 Inverters shall meet the safety requirements of UL 1741 and 12 months after the publication of UL 1741 SA (Supplement A) utility-interactive inverters shall meet the specifications of UL 1741 SA.

4009 DISPUTES

- 4009.1 A party shall attempt to resolve all disputes regarding interconnection as provided in the DCSGIR promptly, equitably, and in a good faith manner.
- 4009.2 When a dispute arises, a party may seek immediate resolution through complaint procedures available through the Commission by providing written notice to the Commission and the other party stating the issues in dispute.
- 4009.3 When disputes relate to the technical application of the DCSGIR, the Commission may designate a technical consultant to resolve the dispute. Upon Commission designation, the parties shall use the technical consultant to resolve disputes related to interconnection. Costs for a dispute resolution conducted by the technical consultant shall be established by the technical consultant and subject to review by the Commission.
- 4009.4 Pursuit of dispute resolution shall not affect an Interconnection Customer with regard to consideration of an Interconnection Request or an Interconnection Customer's Queue Position.

4010 WAIVER

- 4010.1 The Commission may, in its discretion, waive any provisions of Chapter 40 upon notice to the affected persons.

SUPPLEMENTAL REVIEW

Within twenty (20) business days of determining that Supplemental Review is appropriate, the EDC shall perform Supplemental Review using the screens set forth below, notify the Interconnection Customer of the results, and include with the notification a written report of the analysis and data underlying the EDC's determinations under the screens.

- (a) Where twelve (12) months of Line Section minimum load data is available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate Small Generator Facility Nameplate Capacity on the Line Section is less than one hundred percent (100%) of the minimum load for all Line Sections bounded by automatic sectionalizing devices upstream of the proposed Small Generator Facility. If the minimum load data is not available, or cannot be calculated or estimated, the aggregate Small Generator Facility Nameplate Capacity on the Line Section is less than thirty percent (30%) of the peak load for all Line Sections bounded by automatic sectionalizing devices upstream of the proposed Small Generator Facility.
 - (1) The type of generation used by the proposed Small Generator Facility will be taken into account when calculating, estimating, or determining circuit or Line Section minimum load relevant for the application of this screen. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (*e.g.*, 8 a.m. to 6 p.m.), while all other generation uses absolute minimum load.
 - (2) When this screen is being applied to a Small Generator Facility that serves some onsite electrical load, all generation will be considered as part of the aggregate generation. If a Small Generator Facility uses Energy Storage without energy production equipment, and incorporates controls which limit Energy Storage discharge schedule to periods that are fixed and known to the EDC, the EDC shall consider the Energy Storage discharge schedule when calculating, estimating, or determining circuit or Line Section minimum load relevant for the application of this screen
- (b) In aggregate with existing generation on the Line Section:
 - (1) The voltage regulation on the Line Section can be maintained in compliance with relevant requirements under all system conditions;
 - (2) The voltage fluctuation is within acceptable limits as defined by IEEE 1453 or Good Utility Practice similar to IEEE 1453; and

- (3) The harmonic levels meet IEEE 519 limits at the Point of Common Coupling.
- (c) The locations of the proposed Small Generator Facility and the aggregate Small Generator Facility Nameplate Capacity on the Line Section do not create impacts to safety or reliability that cannot be adequately addressed without application of Level 4 Interconnection Review procedures. The EDC may consider the following factors and others in determining potential impacts to safety and reliability in applying this screen.
- (1) Whether the Line Section has significant minimum loading levels dominated by a small number of customers (i.e., several large commercial customers).
 - (2) If there is an even or uneven distribution of loading along the feeder.
 - (3) If the proposed Small Generator Facility is located in close proximity to the substation (i.e., < 2.5 electrical line miles), and if the distribution line from the substation to the Small Generator Facility is composed of large conductor/feeder section (i.e., 600A class cable).
 - (4) If the proposed Small Generator Facility incorporates a time delay function to prevent reconnection of the generator to the Electric Distribution System until system voltage and frequency are within normal limits for a prescribed time.
 - (5) If operational flexibility is reduced by the proposed Small Generator Facility, such that transfer of the Line Section(s) of the Small Generator Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
 - (6) If the proposed Small Generator Facility utilizes certified anti-islanding functions and equipment.
- (d) Modifications to the Electric Distribution System required by interconnections based on the Supplemental Review shall be treated in the following manner:
- (1) If the Interconnection Request requires only Interconnection Facilities to the Electric Distribution System, a non-binding good faith cost estimate and construction schedule for the Interconnection Facilities to the Electric Distribution System, along with an Approval to Install, shall be provided within fifteen (15) business days after notification of the Supplemental Review results.

- (2) If the Interconnection Request requires more than the addition of Interconnection Facilities, the EDC may elect to provide a non-binding good faith cost estimate and construction schedule for such Distribution System Upgrades within thirty (30) business days after notification of the Supplemental Review results, or the EDC may notify the Interconnection Customer that the EDC will need to complete a Facilities Study under Level 4 Interconnection Review to determine the cost estimate and construction schedule for necessary Distribution System Upgrades.
- (e) If the proposed interconnection meets all of the applicable Adverse System Impact screens and the EDC determines that the Small Generator Facility can be interconnected safely and reliably to the Electric Distribution System, the EDC shall provide the Interconnection Customer an Approval to Install
- (f) An Interconnection Customer that receives an Approval to Install shall provide the Small Generator Interconnection Part II – Certificate of Completion and signed inspection certificate in the following timeframes:
 - (1) For Level 1 Interconnection Requests: Unless extended by mutual agreement of the parties, within six (6) months of receipt of the Approval to Install or six (6) months from the completion of any Distribution System Upgrades, whichever is later, the Interconnection Customer shall provide to the EDC the Level 1 Small Generator Interconnection Part II – Certificate of Completion, including the signed inspection certificate.
 - (2) For Level 2 and 3 Interconnection Requests: Unless extended by mutual agreement of the parties, within twenty-four (24) months from an Interconnection Customer's receipt of the Approval to Install or six (6) months of completion of any Distribution System Upgrades, whichever is later, the Interconnection Customer shall provide to the EDC the Level 2-4 Small Generator Interconnection Part II – Certificate of Completion, including the signed certificate of inspection. An interconnection customer shall communicate with the EDC no less frequently than every six (6) months regarding the status of a proposed small generator facility to which an Interconnection Agreement refers.
- (g) The EDC may conduct a Witness Test within ten (10) business days' of issuing the Authorization to Operate at a time mutually agreeable to the parties. If a Small Generator Facility initially fails the test, the EDC shall offer to redo the Witness Test at the Interconnection Customer's expense at a time mutually agreeable to the parties. If the EDC determines that the

Small Generator Facility fails the Witness Test it must provide a written explanation detailing the reasons and any standards violated.

- (h) Upon EDC's issuance of the Authorization to Operate, an Interconnection Customer may begin interconnected operation of a Small Generator Facility, provided that there is an Interconnection Agreement in effect, the Small Generator Facility has passed any Witness Test required by the EDC, and that the Small Generator Facility has passed any inspection required by the EDC. Evidence of approval by an electric code official includes a signed inspection certificate.
- (i) As an alternative to the Supplemental Review procedures prescribed in this section, the EDC may elect to perform a power flow-based study, providing the Interconnection Customer with the results and the required mitigation, if necessary. The EDC shall make available, upon request, a copy of its power flow-based study for each applicant to the Commission within thirty (30) days after analysis completion.
- (j) The EDC may require photographs of the site, Small Generator Facility components, meters or any other aspect of the Interconnection Facilities as part of the Supplemental Review process.

4012 APPLICANT OPTIONS MEETING

If the EDC determines the Interconnection Request cannot be approved without evaluation under Level 4 Interconnection Review, at the time the EDC notifies the Interconnection Customer of either the Level 1, 2 or 3 Interconnection Review, or Supplemental Review, results, it shall provide the Interconnection Customer the option of proceeding to a Level 4 Interconnection Review or of participating in an applicant options meeting with the EDC to review possible Small Generator Facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generator Facility to be connected safely and reliably. The Interconnection Customer shall notify the EDC that it requests an applicant options meeting or that it would like to proceed to Level 4 Interconnection Review in writing within fifteen (15) business days of the EDC's notification or the Interconnection Request shall be deemed withdrawn. If the Interconnection Customer requests an applicant options meeting, the EDC shall offer to convene a meeting at a mutually agreeable time within the next fifteen (15) business days.

4013-4098 [RESERVED]

4099 DEFINITIONS

4099.1 When used in this chapter, the following terms and phrases shall have the following meaning:

“Adverse System Impact” means a negative effect, due to technical or operational limits on conductors or equipment being exceeded, that compromises the safety and reliability of the Electric Distribution System.

“Affected System” means an electric system not owned or operated by the Electric Distribution Company reviewing the Interconnection Request that may suffer an Adverse System Impact from the proposed interconnection.

“Area Network” means a type of Electric Distribution System served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated. Area networks are also known as grid networks. Area network has the same meaning as the term distribution secondary grid networks in Section 9.2 of IEEE Standard 1547.

“Approval to Install” means written notification that the Small Generator Facility is conditionally approved for installation contingent upon the terms and conditions of the Interconnection Request, and the EDC shall provide such conditional approval by furnishing to Interconnection Customer an EDC-executed copy of the Interconnection Agreement.

“Authorization to Operate” means written notification that the Small Generator Facility is approved for operation under the terms and conditions of the District of Columbia Small Generator Interconnection Rules.

“Certificate of Completion” means a certificate in a completed form approved by the Commission containing information about the Interconnection Equipment to be used, its installation and local inspections.

“Commission” means the Public Service Commission of the District of Columbia.

“Commissioning Test” means the tests applied to a Small Generator Facility by the Interconnection Customer after construction is completed to verify that the facility does not create Adverse System Impacts. The scope of the Commissioning Tests performed shall include the Commissioning Test specified IEEE Standard 1547 Section 11.2.5 “Commissioning tests”.

“Distribution System Upgrade” means a required addition or modification to the EDC’s Electric Distribution System at or beyond the Point of Common Coupling to accommodate the interconnection of a Small Generator Facility. Distribution upgrades do not include interconnection facilities.

“District of Columbia Small Generator Interconnection Rule (DCSGIR)” means the most current version of the procedures for interconnecting Small

Generator Facilities adopted by the Public Service Commission of the District of Columbia.

“Draw-out Type Circuit Breaker” means a switching device capable of making, carrying and breaking currents under normal and abnormal circuit conditions such as those of a short circuit. A draw-out circuit breaker can be physically removed from its enclosure, creating a visible break in the circuit. For the purposes of these regulations, the draw-out circuit breaker shall be capable of being locked in the open, draw-out position.

“Electric Distribution Company” or “EDC” means an electric utility entity that distributes electricity to customers and is subject to the jurisdiction of the Commission.

“Electric Distribution System” means the facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which Electric Distribution Systems operate differ among areas but generally carry less than sixty-nine (69) kilovolts of electricity. Electric distribution system has the same meaning as the term Area EPS, as defined in IEEE Standard 1547.

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

“Facilities Study” means an engineering study conducted by the EDC to determine the required modifications to the EDC’s Electric Distribution System, including the cost and the time required to build and install such modifications as necessary to accommodate an Interconnection Request.

“Fault Current” means the electrical current that flows through a circuit during an electrical fault condition. A fault condition occurs when one or more electrical conductors contact ground or each other. Types of faults include phase to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase. Fault current is several times larger in magnitude than the current that normally flows through a circuit.

“Good Utility Practice” means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time

the decision was made, could have been expected to accomplish the desired result of the lowest reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

“Governmental Authority” means any federal, State, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other Governmental Authority having jurisdiction over the Parties, respective facilities, or services provided, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, EDC or any affiliate thereof.

“IEEE Standard 1547” refers to the Institute of Electrical and Electronics Engineers, Inc. (IEEE) Standard 1547 (2018) “Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces,” as amended and supplemented at the time the Interconnection Request is submitted.

“IEEE Standard 1547.1” refers to the IEEE Standard 1547.1 (2015) “Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems,” as amended and supplemented at the time the Interconnection Request is submitted.

“Interconnection Customer” means an entity that has submitted either an Interconnection Request to interconnect a Small Generator Facility to the EDC’s Electric Distribution System or a pre-application report to get information about EDC’s electrical distribution system at a proposed Point of Common Coupling.

“Interconnection Equipment” means a group of equipment, components, or an integrated system connecting an electric generator with a Local Electric Power System or an Electric Distribution System that includes all interface equipment including switchgear, protective devices, inverters or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

“Interconnection Facilities” means facilities and equipment required by the EDC to accommodate the interconnection of a Small Generator Facility. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generator Facility and the Point of Common Coupling, including modification, additions, or upgrades that are necessary to

physically and electrically interconnect the Small Generator Facility to the Electric Distribution System. Interconnection Facilities are sole use facilities and do not include Distribution System Upgrades.

“Interconnection Request” means an Interconnection Customer’s application and interconnection agreement, in a form approved by the Commission, requesting to interconnect a new Small Generator Facility, or to increase the capacity or modify operating characteristics of an existing approved Small Generator Facility that is interconnected with the EDC’s Electric Distribution System.

“Line Section” means that portion of the EDC’s Electric Distribution System connected to an Interconnection Customer, bounded by automatic sectionalizing devices or the end of the distribution line.

“Local Electric Power System” or “Local EPS” means facilities that deliver electric power to a load that are contained entirely within a single premises or group of premises. Local electric power system has the same meaning as the term Local Electric Power System defined in IEEE Standard 1547.

“Microgrid” means a collection of interconnected loads, generation assets, and advanced control equipment, installed across a limited geographic area and within a defined electrical boundary that is capable of disconnecting from the larger Electric Distribution System. A Microgrid may serve a single customer with several structures or serve multiple customers. A Microgrid can connect and disconnect from the distribution system to enable it to operate in both interconnected or island mode.

“Nameplate Capacity” means the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer and is usually indicated on a nameplate physically attached to the power production equipment.

“Nationally Recognized Testing Laboratory” or “NRTL” means a qualified private organization that meets the requirements of the Occupational Safety and Health Administration’s (OSHA) regulations. NRTLs perform independent safety testing and product certification. Each NRTL shall meet the requirements as set forth by OSHA in the NRTL program.

“Parallel Operation” or “Parallel” means the sustained state of operation over one hundred (100) milliseconds, which occurs when a Small Generator Facility is connected electrically to the Electric Distribution System and thus has the ability for electricity to flow from the Small Generator Facility to the Electric Distribution System.

“PJM Interconnection” means the regional transmission organization that is regulated by the Federal Energy Regulatory Commission and functionally controls the transmission system for the region that includes the District of Columbia.

“Point of Common Coupling” means the point where the Small Generator Facility is electrically connected to the Electric Distribution System. Point of common coupling has the same meaning as defined in IEEE Standard 1547.

“Primary Line” means a distribution line rated at greater than six hundred (600) volts.

“Production Test” is defined in IEEE Standard 1547.

“Queue Position” means the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by the EDC.

“Radial Distribution Circuit” means a circuit configuration where independent feeders branch out radially from a common source of supply. From the standpoint of a utility system, the area described is between the generating source or intervening substations and the customer’s entrance equipment. A radial distribution system is the most common type of connection between a utility and load in which power flows in one direction from the utility to the load.

“Scoping Meeting” means a meeting between representatives of the Interconnection Customer and EDC conducted for the purpose of discussing alternative interconnection options, exchanging information including any Electric Distribution System data and earlier study evaluations that would be reasonably expected to impact interconnection options, analyzing information, and determining the potential feasible points of interconnection.

“Secondary Line” means a service line subsequent to the Primary Line that is rated for six hundred (600) volts or less, also referred to as the customer’s service line.

“Shared Transformer” means a transformer that supplies secondary source voltage to more than one customer.

“Small Generator Facility” means the equipment used by an Interconnection Customer to generate or store electricity that operates in parallel with the Electric Distribution System and, for the purposes of this standard, is rated at twenty (20) MW or less. A Small Generator Facility typically includes an

electric generator, Energy Storage, prime mover, and the Interconnection Equipment required to safely interconnect with the Electric Distribution System or Local Electric Power System as mutually agreed between the parties of the Interconnection Request.

“Spot Network” means a type of Electric Distribution System that uses two or more inter-tied transformers to supply an electrical network circuit. A Spot Network is generally used to supply power to a single customer or a small group of customers. Spot network has the same meaning as the term distribution secondary Spot Networks defined in Section 9.3 of IEEE Standard 1547.

“Standard Agreement for Interconnection of Small Generator Facilities, Interconnection Agreement, or Agreement” means a set of standard forms of Interconnection Agreements approved by the Commission which are applicable to Interconnection Requests pertaining to small generating facilities. The agreement between the Interconnection Customer and the EDC, which governs the connection of the Small Generator Facility to the EDC’s Electric Distribution System, as well as the ongoing operation of the Small Generator Facility after it is connected to the EDC’s Electric Distribution System.

“UL Standard 1741” means Underwriters Laboratories’ standard titled “Inverters Converters, and Controllers for Use in Independent Power Systems,” as amended and supplemented at the time the Interconnection Request is submitted.

“Witness Test” means verification (either by an on-site observation or review of documents) by the EDC that the installation evaluation required by IEEE Standard 1547 Section 11.2.4 and the Commissioning Test required by IEEE Standard 1547 Section 11.2.5 have been adequately performed. For Interconnection Equipment that has not been certified, the Witness Test shall also include the verification by the EDC of the on-site design tests as required by IEEE Standard 1547 Section 11.2.4 and verification by the EDC of Production Tests required by IEEE Standard 1547 Section 11.2.3. All tests verified by the EDC are to be performed in accordance with the applicable test procedures specified by IEEE Standard 1547.1.

**Level 1
Interconnection Request Application Form and Agreement**

Interconnection Customer Contact Information

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Mobile): _____
Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (if different from Customer Contact Information)

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Mobile): _____
Facsimile Number: _____ E-Mail Address: _____

Equipment Contractor

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Mobile): _____
Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor (if Different from Equipment Contractor):

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Mobile): _____
Facsimile Number: _____ E-Mail Address: _____
License number: _____
Active License? Yes ___ No ___

Facility Information (building where the small generator facility is located)

Electric Distribution Company (EDC) Serving Facility Site: _____

Electric Supplier (if different from EDC): _____

Account Number of Facility site (existing EDC customers): _____

Facility Address (building where the small generator facility is located)

Address: _____

City: _____ State: _____ Zip Code: _____

Small Generator Facility Information

Inverter Manufacturer: _____ Model: _____

Nameplate Rating: ____ (kW) ____ (kVA) ____ (AC Volts)

System Design Capacity: _____ (kW) _____ (kVA)

Prime Mover: Photovoltaic Reciprocating Engine Fuel Cell
 Turbine Other _____

Energy Source: Solar Wind Hydro Diesel Natural Gas

Fuel Oil Energy Storage

Other _____

Is the inverter lab certified? Yes

(If yes, attach manufacturer's cut sheet showing listing and label information from the appropriate listing authority, e.g. UL 1741 listing. If no, facility is not eligible for Level 1 Application.)

Intent of Generation/Storage (choose one)

Generator (or PV Panel) Manufacturer, Model #: _____

Number of Generators (or PV Panels): _____

Type of Tracking if PV: Fixed Single Axis Double Axis

Array Azimuth if PV: _____° Array Tilt if PV: _____°

Shading Angles if PV at E, 120°, 150°, S, 210°, 240°, W (Separate with comas: _____°

Offset Load (Unit will operate in parallel, but will not export power to EDC.)

Net Energy Metering (Small generator facility will export power pursuant to District of Columbia Customer Net Energy Metering Contract.)

Community Renewable Energy Facility (interconnection with EDC).

Export Power (CG SPP Schedule) (Unit will operate in parallel and will export power, but does not fit the criteria established in the District of Columbia Customer Net Energy Metering Contract for net metering.)

Note: if Unit will operate in parallel and participate in the PJM market(s), unit will need to obtain an interconnection agreement from PJM.

Back-up Generation (Units that temporarily parallel for more than 100 milliseconds.)

Note: Backup units that do not operate in parallel for more than 100 milliseconds do not need an interconnection agreement.

PJM Demand Response Market Participant (System will not export energy):

Energy, Capacity, Load Reduction and/or Synchronized Reserve Markets: Yes No

Regulation Market: Yes No (if no, would have to re-apply in future if change to frequency regulation)

Estimated Commissioning Date: _____

Insurance Disclosure

The attached terms and conditions contain provisions related to liability, and indemnification and should be carefully considered by the interconnection customer. The interconnection customer is not required to obtain general liability insurance coverage as a precondition for interconnection approval; however, the interconnection customer is advised to consider obtaining appropriate insurance coverage to cover the interconnection customer's potential liability under this agreement.

Customer Signature

I hereby certify that: 1) I have read and understand the terms and conditions which are attached hereto by reference and are a part of this agreement; 2) I hereby agree to comply with the attached terms and conditions; and 3) to the best of my knowledge, all of the information provided in this application request form is complete and true.

Interconnection Customer Signature: _____

Title: _____ Date: _____

Conditional Agreement to Interconnect Small Generator Facility

By its signature below, the EDC has determined the interconnection request is complete, and that the Small Generator Facility has the Approval to Install. This approval is contingent upon the attached terms and conditions of this agreement, the return of the attached Certificate of Completion duly executed, and the verification of electrical inspection and successful witness test or EDC waiver thereof.

EDC Signature: _____ Date: _____

Printed Name: _____ Title: _____

Terms and Conditions for Interconnection

- (1) **Construction of the Small Generator Facility.** The interconnection customer may proceed to construct (including operational testing not to exceed two (2) hours) the Small Generator Facility once the conditional agreement to interconnect a Small Generator Facility has been signed by the EDC.
- (2) **Final Interconnection and Operation.** The interconnection customer may operate the Small Generator Facility and interconnect with the EDC's electric distribution system once all of the following have occurred:
 - (a) **Electrical Inspection:** Upon completing construction, the interconnection customer will cause the Small Generator Facility to be inspected by the local electrical wiring inspector with jurisdiction who shall establish that the Small Generator Facility meets the requirements of the National Electrical Code.
 - (b) **Certificate of Completion:** The interconnection customer shall provide the EDC with a completed copy of the Certificate of Completion, including evidence of the electrical inspection performed by the local authority having jurisdiction. The evidence of completion of the electrical inspection may be provided on inspection forms used by local inspecting authorities. The interconnection request shall not be finally approved until the EDC's representative signs the Certificate of Completion.
 - (c) The EDC has either waived the right to a Witness Test in the interconnection request, or completed its Witness Test as per the following:
 - (i) Within ten (10) business days of receiving the notice of the anticipated start date, at a time mutually agreeable to the parties, the EDC may conduct a Witness Test of the Small Generator Facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes.

- (ii) If the EDC does not perform the Witness Test within the ten (10) day period or other time as is mutually agreed to by the parties, the Witness Test is deemed waived.
- (3) **IEEE 1547.** The small generator facility is installed, operated, and tested in accordance with the requirements of IEEE Standard 1547 (2018), “Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces”, as amended and supplemented, at the time the interconnection request is submitted.
- (4) **Access.** The EDC shall have direct, unabated access to the metering equipment of the small generator facility at all times. The EDC shall provide reasonable notice to the customer when possible prior to using its right of access.
- (5) **Metering.** Any required metering shall be installed pursuant to appropriate tariffs and tested by the EDC pursuant to the EDCs meter testing requirements.
- (6) **Disconnection.** The EDC may temporarily disconnect the small generator facility upon the following conditions:
 - (a) For scheduled outages upon reasonable notice;
 - (b) For unscheduled outages or emergency conditions;
 - (c) If the small generator facility does not operate in the manner consistent with this agreement;
 - (d) Improper installation or failure to pass the Witness Test;
 - (e) If the small generator facility is creating a safety, reliability or a power quality problem;
or
 - (f) The interconnection equipment used by the small generator facility is de-listed by the Nationally Recognized Testing Laboratory that provided the listing at the time the interconnection was approved.
- (7) **Indemnification.** The parties shall at all times indemnify, defend, and save the other party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other party’s action or inactions of its obligations under this agreement on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.
- (8) **Limitation of Liability.** Each party’s liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney’s fees, relating to or arising from any act or omission in its performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

- (9) **Termination.** This agreement may be terminated under the following conditions:
- (a) By interconnection customer - The interconnection customer may terminate this application agreement by providing written notice to the EDC.
 - (b) By the EDC - The EDC may terminate this agreement if the interconnection customer fails to remedy a violation of terms of this agreement within thirty (30) calendar days after notice, or such other date as may be mutually agreed to prior to the expiration of the thirty (30) calendar day remedy period. The termination date can be no less than thirty (30) calendar days after the interconnection customer receives notice of its violation from the EDC.
- (10) **Modification of Small Generator Facility.** The interconnection customer shall provide written notification to the EDC before making any modifications to the Small Generator Facility. The EDC will determine if the modifications are minor or non-minor in nature. Written authorization from the EDC is required for non-minor changes if the EDC determines that the interconnection customer's modifications may have a significant impact on the safety or reliability of the Electric Distribution System. If the interconnection customer makes such modifications without the EDC's prior written authorization the EDC shall have the right to temporarily disconnect the Small Generator Facility until such time as the EDC reasonably concludes the modification poses no threat to the safety or reliability of its Electric Distribution System.
- (11) **Permanent Disconnection.** In the event the agreement is terminated, the EDC shall have the right to disconnect its facilities or direct the customer to disconnect its Small Generator Facility.
- (12) **Disputes.** Each party agrees to attempt to resolve all disputes regarding the provisions of these interconnection procedures pursuant to the dispute resolution provisions of the District of Columbia Small Generator Interconnection Rules.
- (13) **Governing Law, Regulatory Authority, and Rules.** The validity, interpretation and enforcement of this agreement and each of its provisions shall be governed by the laws of the District of Columbia. Nothing in this agreement is intended to affect any other agreement between the EDC and the interconnection customer. However, in the event that the provisions of this agreement are in conflict with the provisions of the EDC's tariff, the EDC tariff shall control.
- (14) **Survival Rights.** This agreement shall continue in effect after termination to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.
- (15) **Assignment/Transfer of Ownership of the Small Generator Facility:** This agreement shall terminate upon the transfer of ownership of the Small Generator Facility to a new owner unless the transferring owner assigns the agreement to the new owner and so notifies the EDC in writing prior to the transfer of electric service.

- (16) **Definitions.** Any capitalized term used herein and not defined shall have the same meaning as the defined terms used in the District of Columbia Small Generator Interconnection Rule.
- (17) **Notice.** Unless otherwise provided in this agreement, any written notice, demand, or request required or authorized in connection with this agreement (“Notice”) shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

(If Notice is sent to the Interconnection Customer)

Use the contact information provided in the agreement for the interconnection customer. The interconnection customer is responsible for notifying the EDC of any change in the contact party information, including change of ownership.

(If Notice is sent to the EDC)

Use the contact information provided on the EDC’s web page for small generator interconnection.

**DISTRICT OF COLUMBIA SMALL GENERATOR INTERCONNECTION RULE
LEVEL 2-4
STANDARD AGREEMENT FOR INTERCONNECTION OF
SMALL GENERATOR FACILITIES**

This Agreement is made and entered into this ____ day of _____, by and between _____, a _____ organized and existing under the laws of _____, (“Interconnection Customer,”) and _____, a _____, existing under the laws of _____, (“EDC”). The Interconnection Customer and the EDC each may be referred to as a “Party, ” or collectively as the “Parties.”

Recitals:

Whereas, Interconnection Customer is proposing to, install or direct the installation of a Small Generator Facility, or is proposing a generating capacity addition to an existing Small Generator Facility, consistent with the Interconnection Request completed by Interconnection Customer on _____; and

Whereas, the Interconnection Customer will operate and maintain, or cause the operation and maintenance of the Small Generator Facility; and

Whereas, Interconnection Customer desires to interconnect the Small Generator Facility with the EDC’s Electric Distribution System.

Now, therefore, in consideration of the promises and mutual covenants set forth herein, and other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

Article 1. **Scope and Limitations of Agreement**

- 1.1** This Agreement shall be used for all approved Level 2, Level 3 and Level 4 Interconnection Requests according to the procedures set forth in the District of Columbia Small Generator Interconnection Rules.
- 1.2** This Agreement governs the terms and conditions under which the Small Generator Facility will interconnect to, and operate in Parallel with, the EDC’s Electric Distribution System. This Agreement provides the Interconnection Customer with the Approval to Install contingent upon satisfying all terms and conditions.
- 1.3** This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer’s power.
- 1.4** Nothing in this Agreement is intended to affect any other agreement between the EDC and the Interconnection Customer. However, in the event that the provisions

of this Agreement are in conflict with the provisions of the EDC's tariff, the EDC tariff shall control.

1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations.
- 1.5.2 The EDC shall construct, own, operate, and maintain its Interconnection Facilities in accordance with this Agreement, IEEE Standard 1547, the National Electrical Safety Code and applicable standards promulgated by the District of Columbia Public Service Commission.
- 1.5.3 The Interconnection Customer shall construct, own, operate, and maintain its Interconnection Facilities in accordance with this Agreement, IEEE Standard 1547, the National Electrical Code and applicable standards promulgated by the District of Columbia Public Service Commission.
- 1.5.4 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the Point of Common Coupling.
- 1.5.5 The Interconnection Customer agrees to design, install, maintain and operate its Small Generator Facility so as to minimize the likelihood of causing an Adverse System Impact on an electric system that is not owned or operated by the EDC.

1.6 Metering

The Interconnection Customer shall be responsible for the cost of the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 4 and 5 of this Agreement.

1.7 Reactive Power

The Interconnection Customer shall design its Small Generator Facility to maintain a composite power delivery at continuous rated power output at the Point of common coupling at a power factor within the power factor range required by the EDC's applicable tariff for a comparable load customer. The EDC may also require the Interconnection Customer to follow a voltage or VAR schedule if such schedules are applicable to similarly situated generators in the control area on a comparable basis and have been approved by the Commission. The specific requirements for meeting a voltage or VAR schedule shall be clearly specified in Attachment 3.

Under no circumstance shall these additional requirements for reactive power or voltage support exceed the normal operating capabilities of the Small Generator Facility.

1.8 Capitalized Terms

Capitalized terms used herein shall have the meanings specified in the Definitions section of the District of Columbia Small Generator Interconnection Rules or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

The Interconnection Customer shall test and inspect its Small Generator Facility including the Interconnection Equipment prior to interconnection in accordance with IEEE Standard 1547, IEEE Standard 1547.1, and the technical and procedural requirements in the District of Columbia Small Generator Interconnection Rule. The Interconnection Customer shall not operate its Small Generator Facility in Parallel with the EDC's Electric Distribution System without prior written authorization by the EDC as provided for in Articles 2.1.1 – 2.1.3.

2.1.1 The EDC shall have the option of performing a Witness Test after construction of the Small Generator Facility is completed. The Interconnection Customer shall provide the EDC at least twenty (20) days' notice of the planned Commissioning Test for the Small Generator Facility. If the EDC elects to perform a Witness Test, it shall contact the Interconnection Customer to schedule the Witness Test at a mutually agreeable time within ten (10) business days of the scheduled Commissioning Test. If the EDC does not perform the Witness Test within ten (10) business days of the Commissioning Test, the Witness Test is deemed waived unless the parties mutually agree to extend the date for scheduling the Witness Test. If the Witness Test fails to reveal that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes, the EDC shall offer to redo the Witness Test at the Interconnection Customer's expense at a time mutually agreeable to the parties. If the EDC determines that the Small Generator Facility fails the inspection it must provide a written explanation detailing the reasons and any standards violated. If the EDC does not perform the Witness Test within ten (10) business days or other time as is mutually agreed to by the parties, the Witness Test is deemed waived. After considering the "redo" option, if the Witness Test is still not acceptable to the EDC, the Interconnection Customer will be granted a period of thirty (30) calendar days to address and resolve any deficiencies. The time period for addressing and resolving any deficiencies may be extended upon the mutual agreement of the EDC and the

Interconnection Customer. If the Interconnection Customer fails to address and resolve the deficiencies to the satisfaction of the EDC, the applicable termination provisions of Article 3.3.7 shall apply. If a Witness Test is not performed by the EDC or an entity approved by the EDC, the Interconnection Customer must still satisfy the interconnection test specifications and requirements set forth in IEEE Standard 1547 Section 11.2. The Interconnection Customer shall, if requested by the EDC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

2.1.2 To the extent that the Interconnection Customer decides to conduct interim testing of the Small Generator Facility prior to the Witness Test, it may request that the EDC observe these tests and that these tests be deleted from the final Witness Test. The EDC may, at its own expense, send qualified personnel to the Small Generator Facility to observe such interim testing. Nothing in this Section 2.1.2 shall require the EDC to observe such interim testing or preclude the EDC from performing these tests at the final Witness Test. Regardless of whether the EDC observes the interim testing, the Interconnection Customer shall obtain permission in advance of each occurrence of operating the Small Generator Facility in parallel with the EDC's system.

2.1.3 Upon successful completion of the Witness Test, the EDC shall affix an authorized signature to the Certificate of Completion and return it to the Interconnection Customer approving the interconnection and authorizing Parallel Operation. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.2 Commercial Operation

The Interconnection Customer shall not operate the Small Generator Facility, except for interim testing as provided in Article 2.1, until such time as the Certificate of Completion is signed by all Parties.

2.3 Right of Access

The EDC shall have access to the disconnect switch and metering equipment of the Small Generator Facility at all times. The EDC shall provide reasonable notice to the customer when possible prior to using its right of access.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect in perpetuity unless terminated earlier in accordance with Article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the EDC thirty (30) calendar days prior written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to Article 6.5.

3.3.3 The EDC may terminate upon sixty (60) calendar days' prior written notice for failure of the Interconnection Customer to complete construction of the Small Generator Facility within twelve (12) months of the in-service date as specified by the Parties in Attachment 1, which may be extended by mutual agreement of the Parties which shall not be unreasonably withheld.

3.3.4 The EDC may terminate this Agreement upon sixty (60) calendar days' prior written notice if the Interconnection Customer fails to operate the Small Generator Facility in parallel with EDC's electric system for three consecutive years.

3.3.5 Upon termination of this Agreement, the Small Generator Facility will be disconnected from the EDC's Electric Distribution System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.6 The provisions of this Article shall survive termination or expiration of this Agreement.

3.3.7 The EDC may terminate this Agreement if the Interconnection Customer fails to comply with the Witness Test requirement in Article 2.2.1.

3.4 Temporary Disconnection

A Party may temporarily disconnect the Small Generator Facility from the Electric Distribution System in the event of an Emergency Condition for as long as the Party determines it is reasonably necessary in the event one or more of the following conditions or events occurs:

- 3.4.1 Emergency Conditions - Emergency Conditions shall mean any condition or situation: (1) that in the judgment of the Party making the claim is reasonably likely to endanger life or property; or (2) that, in the case of the EDC, is reasonably likely to cause an Adverse System Impact; or (3) that, in the case of the Interconnection Customer, is reasonably likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generator Facility or the Interconnection Equipment. Under Emergency Conditions, the EDC or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the Small Generator Facility. The EDC shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generator Facility. The Interconnection Customer shall notify the EDC promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the EDC's Electric Distribution System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- 3.4.2 Scheduled Maintenance, Construction, or Repair – The EDC may interrupt interconnection service or curtail the output of the Small Generator Facility and temporarily disconnect the Small Generator Facility from the EDC's Electric Distribution System when necessary for scheduled maintenance, construction, or repairs on the EDC's Electric Distribution System. The EDC shall provide the Interconnection Customer with five business days' notice prior to such interruption. The EDC shall use reasonable efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.
- 3.4.3 Forced Outages - With any forced outage, the EDC may suspend interconnection service to effect immediate repairs on the EDC's Electric Distribution System. The EDC shall use reasonable efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the EDC shall, upon written request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.
- 3.4.4 Adverse Operating Effects – The EDC shall provide the Interconnection Customer with a written notice of its intention to disconnect the Small Generator Facility if, based on the operating requirements specified in Attachment 3, the EDC determines that operation of the Small Generator Facility will likely cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generator Facility could cause damage to the EDC's Electric Distribution

System. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon written request. The EDC may disconnect the Small Generator Facility if, after receipt of the notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time unless Emergency Conditions exist in which case the provisions of Article 3.4.1 apply.

- 3.4.5 Modification of the Small Generator Facility - The Interconnection Customer shall provide written notification to the EDC before making any modifications to the Small Generator Facility. The EDC will determine if the modifications are minor or non-minor in nature. Written authorization from the EDC is required for non-minor changes if the EDC determines that the Interconnection Customer's modifications could cause an Adverse System Impact. If the Interconnection Customer makes such modifications without the EDC's prior written authorization the EDC shall have the right to temporarily disconnect the Small Generator Facility until such time as the EDC reasonably concludes the modification poses no threat to the safety or reliability of its Electric Distribution System.
- 3.4.6 Reconnection - The Parties shall cooperate with each other to restore the Small Generator Facility, Interconnection Facilities, and EDC's Electric Distribution System to their normal operating state as soon as reasonably practicable following any disconnection pursuant to this section; provided, however, if such disconnection is done pursuant to Article 3.4.5 due to the Interconnection Customer's failure to obtain prior written authorization from the EDC for Non- Minor Equipment Modifications, the EDC shall reconnect the Interconnection Customer only after determining the modifications do not impact the safety or reliability of its Electric Distribution System.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

- 4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement if required under the additional review procedures of a Level 2 review or under a Level 4 review. If a Facilities Study was performed, the EDC shall identify the Interconnection Facilities necessary to safely interconnect the Small Generator Facility with the EDC's Electric Distribution System, the cost of those facilities, and the time required to build and install those facilities.
- 4.1.2 The Interconnection Customer shall be responsible for its expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its Interconnection Equipment, and (2) its

reasonable share of operating, maintaining, repairing, and replacing any Interconnection Facilities owned by the EDC as set forth in Attachment 2.

4.2 Distribution Upgrades

The EDC shall design, procure, construct, install, and own any Distribution Upgrades. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer. The Interconnection Customer may be entitled to financial contribution from any other EDC customers who may in the future utilize the upgrades paid for by the Interconnection Customer. Such contributions shall be governed by the rules, regulations and decisions of the District of Columbia Public Service Commission.

Article 5. Billing, Payment, Milestones, and Financial Security

5.1 Billing and Payment Procedures and Final Accounting (Applies to additional reviews conducted under Levels 2, 3 or 4)

- 5.1.1 The EDC shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of the EDC provided Interconnection Facilities and Distribution Upgrades contemplated by this Agreement as set forth in Attachment 2, on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within thirty (30) calendar days of receipt, or as otherwise agreed to by the Parties.
- 5.1.2 Within ninety (90) calendar days of completing the construction and installation of the EDC's Interconnection Facilities and Distribution Upgrades described in the Attachments 1 and 2 to this Agreement, the EDC shall provide the Interconnection Customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation and the budget estimate provided to the Interconnection Customer and a written explanation for any significant variation; and (2) the Interconnection Customer's previous deposit and aggregate payments to the EDC for such Interconnection Facilities and Distribution Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the EDC within thirty (30) calendar days. If the Interconnection Customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, the EDC shall refund to the Interconnection Customer an amount equal to the difference within thirty (30) calendar days of the final accounting report.
- 5.1.3 If a Party in good faith disputes any portion of its payment obligation pursuant to this Article 5, such Party shall pay in a timely manner all non-

disputed portions of its invoice, and such disputed amount shall be resolved pursuant to the dispute resolution provisions contained in Article 8. Provided such Party's dispute is in good faith, the disputing Party shall not be considered to be in default of its obligations pursuant to this Article.

5.2 Interconnection Customer Deposit

When a Level 4 Interconnection Feasibility Study, Interconnection System Impact Study, or Interconnection Facility Study or a Level 2 Review of Minor Modifications is required under the District of Columbia Small Generator Interconnection Rules, the EDC may require the Interconnection Customer to pay a deposit equal to fifty percent (50%) of the estimated cost to perform the study or review. At least twenty (20) business days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the EDC's Interconnection Facilities and Distribution Upgrades, the Interconnection Customer shall provide the EDC with a deposit equal to fifty percent (50%) of the estimated costs prior to its beginning design of such facilities, provided the total cost is in excess of one thousand dollars (\$1,000).

Article 6. Assignment, Limitation on Damages, Indemnity, Force Majeure, and Default

6.1 Assignment

This Agreement may be assigned by either Party upon fifteen (15) business days' prior written notice, and with the opportunity to object by the other Party. Should the Interconnection Customer assign this agreement, the EDC has the right to request that the assignee agree to the assignment and the terms of this Agreement in writing. When required, consent to assignment shall not be unreasonably withheld; provided that:

- 6.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate (which shall include a merger of the Party with another entity), of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;
- 6.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the EDC, for collateral security purposes to aid in providing financing for the Small Generator Facility. For Small Generator systems that are integrated into a building facility, the sale of the building or property will result in an automatic transfer of this agreement to the new owner who shall be responsible for complying with the terms and conditions of this Agreement.
- 6.1.3 Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's

obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the Interconnection Customer.

6.2 Limitation on Damages

Except for cases of gross negligence or willful misconduct, the liability of any Party to this Agreement shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances, except for cases of gross negligence or willful misconduct, shall any Party or its directors, officers, employees and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits, lost revenues, replacement power, cost of capital or replacement equipment. This limitation on damages shall not affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement. The provisions of this Article 6.2 shall survive the termination or expiration of the Agreement.

6.3 Indemnity

- 6.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 6.2.
- 6.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 6.3.3 Promptly after receipt by an indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.
- 6.3.4 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, such indemnified Party may at the expense of the

indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

- 6.3.5 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified person shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.

6.4 Force Majeure

- 6.4.1 As used in this Article, a Force Majeure Event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure Event does not include an act of gross negligence or intentional wrongdoing.
- 6.4.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance, and if the initial notification was verbal, it should be promptly followed up with a written notification. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party shall be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be reasonably mitigated. The Affected Party shall use reasonable efforts to resume its performance as soon as possible.

6.5 Default

- 6.5.1 No default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement, or the result of an act or omission of the other Party.
- 6.5.2 Upon a default of this Agreement, the non-defaulting Party shall give written notice of such default to the defaulting Party. Except as provided in Article 6.5.3 the defaulting Party shall have sixty (60) calendar days from receipt of the default notice within which to cure such default; provided

however, if such default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within twenty (20) calendar days after notice and continuously and diligently complete such cure within six months from receipt of the default notice; and, if cured within such time, the default specified in such notice shall cease to exist.

- 6.5.3 If a Party has made an assignment of this Agreement not specifically authorized by Article 6.1, fails to provide reasonable access pursuant to Article 2.3, is in default of its obligations pursuant to Article 7, or if a Party is in default of its payment obligations pursuant to Article 5 of this Agreement, the defaulting Party shall have thirty (30) days from receipt of the default notice within which to cure such default.
- 6.5.4 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

Article 7. Insurance

For Small Generator Facilities, the Interconnection Customer shall carry adequate insurance coverage that shall be acceptable to the EDC; provided, that the maximum comprehensive/general liability coverage that shall be continuously maintained by the Interconnection Customer during the term for non-inverter based systems 500 kW up to 2 MW shall have one million dollars (\$1 million) of insurance, two million dollars (\$2 million) for non-inverter based systems larger than 2 MW up to 5 MW, and three million dollars (\$3 million) for non-inverter systems larger than 5 MW. For inverter-based generating facilities, systems between 1 MW and 5 MW have \$1 million of insurance and systems larger than 5 MW have \$2 million of insurance. The EDC, its officers, employees and agents will be added as an additional insured on this policy.

Article 8. Dispute Resolution

- 8.1 A party shall attempt to resolve all disputes regarding interconnection as provided in this Agreement and the District of Columbia Small Generator Interconnection Rule promptly, equitably, and in a good faith manner.
- 8.2 When a dispute arises, a party may seek immediate resolution through complaint procedures available through the Commission, or an alternative dispute resolution process approved by the Commission, by providing written notice to the Commission and the other party stating the issues in dispute. Dispute resolution

will be conducted in an informal, expeditious manner to reach resolution with minimal costs and delay. When available, dispute resolution may be conducted by phone.

- 8.3** When disputes relate to the technical application of this Agreement and the District of Columbia Small Generator Interconnection Rule, the Commission may designate a technical consultant to resolve the dispute. Upon Commission designation, the parties shall use the technical consultant to resolve disputes related to interconnection. Costs for a dispute resolution conducted by the technical consultant shall be established by the technical consultant, subject to review by the Commission.
- 8.4** Pursuit of dispute resolution may not affect an Interconnection Customer with regard to consideration of an Interconnection Request or an Interconnection Customer's Queue Position.
- 8.5** If the Parties fail to resolve their dispute under the dispute resolution provisions of this Article, nothing in this Article shall affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement.

Article 9. Miscellaneous

9.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the District of Columbia, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations.

9.2 Amendment

Modification of this Agreement shall be only by a written instrument duly executed by both Parties.

9.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

9.4 Waiver

9.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement shall not be

considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

9.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from EDC. Any waiver of this Agreement shall, if requested, be provided in writing.

9.5 Entire Agreement

This Agreement, including all attachments, constitutes the entire Agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

9.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

9.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

9.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

9.9 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generator Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four (24) hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

9.10 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

9.10.1 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

9.10.2 The obligations under this Article will not be limited in any way by any limitation of subcontractor’s insurance.

Article 10. Notices

10.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement (“Notice”) shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to Interconnection Customer:

Interconnection Customer: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ E-mail _____

If to EDC:

EDC _____
Attention: _____
Address: _____

City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ E-mail _____

10.2 Billing and Payment

Billings and payments shall be sent to the addresses set forth below:

If to Interconnection Customer:

Interconnection Customer: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

If to EDC

EDC: _____
Attention: _____
Address: _____
City: _____ State: _____ Zip: _____

10.3 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Attention: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ Fax: _____ E-Mail _____

EDC's Operating Representative:

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-Mail _____

10.4 Changes to the Notice Information

Either Party may change this notice information by giving five business days written notice prior to the effective date of the change.

Article 11. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Interconnection Customer:

Name: _____

Title: _____

Date: _____

For EDC:

Name: _____

Title: _____

Date: _____

ATTACHMENT 1

CONSTRUCTION SCHEDULE, PROPOSED EQUIPMENT & SETTINGS

This attachment shall include the following:

1. The construction schedule for the Small Generator Facility
2. A one-line diagram indicating the Small Generator Facility, Interconnection Equipment, Interconnection Facilities, Metering Equipment, and Distribution Upgrades
3. Component specifications for equipment identified in the one-line diagram
4. Component settings
5. Proposed sequence of operations

ATTACHMENT 2

DESCRIPTION, COSTS AND TIME REQUIRED TO BUILD AND INSTALL THE EDC'S INTERCONNECTION FACILITIES

The EDC's Interconnection Facilities including any required metering shall be itemized and a best estimate of itemized costs, including overheads, shall be provided based on the Facilities Study.

Also, a best estimate for the time required to build and install the EDC's Interconnection Facilities will be provided based on the Facilities Study.

ATTACHMENT 3

OPERATING REQUIREMENTS FOR SMALL GENERATOR FACILITIES OPERATING IN PARALLEL

Applicable sections of the EDC's operating manuals applying to the small generator interconnection shall be listed and Internet links shall be provided. Any special operating requirements not contained in the EDC's existing operating manuals shall be clearly identified. The EDC's operating requirements shall not impose additional technical or procedural requirements on the Small Generator Facility beyond those found in the District of Columbia Small Generator Interconnection Rules, except those required for safety.

ATTACHMENT 4

METERING REQUIREMENTS

Metering requirements for the Small Generator Facility shall be clearly indicated along with an identification of the appropriate tariffs that establish these requirements and an internet link to these tariffs.

ATTACHMENT 5

AS BUILT DOCUMENTS

After completion of the Small Generator Facility, the Interconnection Customer shall provide the EDC with documentation indicating the as built status of the following when it returns the Certificate of Completion to the EDC:

1. A one-line diagram indicating the Small Generator Facility, Interconnection Equipment, Interconnection Facilities, Metering Equipment, and Distribution Upgrades
2. Component specifications for equipment identified in the one-line diagram
3. Component settings
4. Proposed sequence of operations

LEVEL 2, LEVEL 3 AND LEVEL 4

INTERCONNECTION REQUEST APPLICATION FORM

Interconnection Customer Contact Information

Name _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Mobile): _____

Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (if different from Customer Contact Information)

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Mobile): _____

Facsimile Number: _____ E-Mail Address: _____

Facility Address (Building where the Small Generator Facility is located)

Address: _____

City: _____ State: _____ Zip Code: _____

Equipment Contractor

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Mobile): _____

Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor (if Different from Equipment Contractor):

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Mobile): _____

Facsimile Number: _____ E-Mail Address: _____

License number: _____

Active License? Yes ___ No ___

Electric Service Information for Customer Facility Where Generator Will Be Interconnected

Electric Distribution Company (EDC) serving Facility site: _____

Electric Supplier (if different from EDC): _____

Account Number of Facility site (existing EDC customers): _____

Capacity: _____(Amps) Voltage: _____(Volts)

Type of Service: Single Phase Three Phase

If 3 Phase Transformer, Indicate Type

Primary Winding Wye Delta

Secondary Winding Wye Delta

Transformer Size: _____ Impedance: _____

Intent of Generation (choose one)

- Offset Load (Unit will operate in parallel, but will not export power to EDC.)
- Net Energy Metering (Small Generator Facility will export power pursuant to District of Columbia Customer Net Energy Metering Contract.)
- Community Renewable Energy Facility (interconnection with EDC).
- Export Power (CG SPP Schedule) (Unit will operate in parallel and will export power but does not fit the criteria established in the District of Columbia Customer Net Energy Metering Contract for net energy metering.)

Note: If Unit will operate in parallel and participate in the PJM market(s), Unit will need to obtain an Interconnection Agreement from PJM.

- Back-up Generation (Units that temporarily parallel for more than 100 milliseconds.)

Note: Backup units that do not operate in parallel for more than 100 milliseconds do not need an Interconnection Agreement.

- PJM Demand Response Market Participant (System will not export energy)
Energy, Capacity, Load Reduction and/or Synchronized Reserve Markets: Yes
- No

Regulation Market: Yes No (if no, would have to re-apply in future if change to frequency regulation)

Microgrid: No__ Yes __; If Yes indicate below any/all Energy Production Equipment/Inverter Information that is to be used

Requested Procedure Under Which to Evaluate Interconnection Request

Please indicate below which review procedure applies to the Interconnection Request.

- Level 2** - Certified Interconnection Equipment with an aggregate electric Nameplate Capacity less than or equal to 5 MW. Indicate type of certification below. (Application fee amount is \$500.)
- Level 3** – Small generator facility does not export power. Nameplate capacity rating is equal to or less than 20 MW if connecting to a radial distribution feeder. An Interconnection Customer proposing to interconnect a small generator to a spot or Area Network is not permitted under the Level 3 review process. (Application fee amount is \$500.)
- Level 4** – Nameplate capacity rating is less than 20 MW and the Small Generator Facility does not qualify for a Level 1, Level 2 or Level 3 review or, the Small Generator Facility has been reviewed but not approved under a Level 1, Level 2 or Level 3 review. (Application fee amount is \$1,000, to be applied toward any subsequent studies related to this application.)

For Level 1, 2, 3 applications before EDC’s considering a Level 4 review, the applicant can request a meeting based on “Applicant Options Meeting” section of Chapter 40.

Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to the District of Columbia Small Generator Interconnection Rules.

Small Generator Facility Information

Energy Production Equipment/Inverter Information

Energy Source: Hydro Wind Solar Diesel Biomass Natural Gas

Coal Oil Other Solar + Energy Storage Energy Storage

Energy Converter Type: Water Turbine Wind Turbine Photovoltaic Cell
 Steam Turbine Combustion Turbine Reciprocating

Engine

Other _____

Generator Type: Synchronous Induction Inverter Other _____

Rating: _____ kW Rating: _____ kVA Number of Units: _____

Rated Voltage: _____ Volts

Rated Current: _____ Amps

System Type Tested (Total System): Yes No; attach product literature

Interconnection components/system(s) to be used in the Small Generation Facility that are lab certified (required for Level 2 and Level 3 Interconnection requests only).

Component/System NRTL Providing Label & Listing

1. _____
2. _____
3. _____
4. _____

Please provide copies of manufacturer brochures or technical specifications.

For Synchronous Machines:

Note: Contact EDC to determine if all the information requested in this section is required for the proposed Small Generator Facility.

Manufacturer: _____

Model No. _____ Version No. _____

Submit copies of the Saturation Curve and the Vee Curve

Salient Non-Salient

Torque: _____ lb-ft Rated RPM: _____ Field Amperes: _____ at rated generator voltage and current and _____ % PF over-excited

Type of Exciter: _____

Output Power of Exciter: _____

Type of Voltage Regulator: _____ Locked Rotor

Current: _____ Amps Synchronous Speed: _____ RPM

Winding Connection: _____ Min. Operating Freq./Time: _____

Generator Connection: Delta Wye Wye Grounded

Direct-axis Synchronous Reactance (Xd) _____ ohms

Direct-axis Transient Reactance (X'd) _____ ohms

Direct-axis Sub-transient Reactance (X''d) _____ ohms

Negative Sequence Reactance: _____ ohms

Zero Sequence Reactance: _____ ohms

Neutral Impedance or Grounding Resister (if any): _____ ohms

For Induction Machines:

Note: Contact EDC to determine if all the information requested in this section is required for the proposed Small Generator Facility.

Manufacturer: _____
Model No. _____ Version No. _____
Locked Rotor Current: _____ Amps
Rotor Resistance (Rr) _____ ohms Exciting Current _____ Amps
Rotor Reactance (Xr) _____ ohms Reactive Power Required: _____
Magnetizing Reactance (Xm) _____ ohms _____ VARs (No Load)
Stator Resistance (Rs) _____ ohms _____ VARs (Full Load)
Stator Reactance (Xs) _____ ohms
Short Circuit Reactance (X"d) _____ ohms
Phases: Single Three-Phase
Frame Size: _____ Design Letter: _____ Temp. Rise: _____ °C.

Reverse Power Relay Information (Level 3 Review Only)

Manufacturer: _____
Relay Type: _____ Model Number: _____
Reverse Power Setting: _____
Reverse Power Time Delay (if any): _____

Additional Information For Inverter Based Facilities

Inverter Information:
Manufacturer: _____ Model: _____
Type: Forced Commutated Line Commutated
Number of Inverters: _____
Rated Output _____ Watts _____ Volts
Efficiency _____ % Power Factor _____ %
Inverter UL1547 Listed: Yes No

D.C. Source / Prime Mover:

Rating: _____ kW Rating: _____ kVA
Rated Voltage: _____ Volts
Open Circuit Voltage (If applicable): _____ Volts
Rated Current: _____ Amps
Short Circuit Current (If applicable): _____ Amps
Generator (or PV Panel) Manufacturer, Model #: _____
Number of Generators (or PV Panels): _____
Type of Tracking if PV: Fixed Single Axis Double Axis
Array Azimuth if PV: _____ ° Array Tilt if PV: _____ °
Shading Angles if PV at E, 120°, 150°, S, 210°, 240°, W (Separate with comas: _____ °

Other Facility Information:

One Line Diagram attached: Yes

Plot Plan attached: Yes

Estimated Commissioning Date: _____

Customer Signature

I hereby certify that all of the information provided in this application request form is true.

Interconnection Customer Signature: _____

Title: _____ Date: _____

An invoice will be emailed for the application fee. An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application:

Application fee included

Amount _____