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

May 8, 2026

FORMAL CASE NO. 1050, IN THE MATTER OF THE INVESTIGATION OF THE IMPLEMENTATION OF INTERCONNECTION STANDARDS IN THE DISTRICT OF COLUMBIA,

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

FORMAL CASE NO. 1163, IN THE MATTER OF THE INVESTIGATION INTO THE REGULATORY FRAMEWORK OF MICROGRIDS IN THE DISTRICT OF COLUMBIA,

FORMAL CASE NO. 1166, IN THE MATTER OF THE INVESTIGATION INTO ENERGY STORAGE AND DISTRIBUTED ENERGY RESOURCES IN THE DISTRICT OF COLUMBIA,

FORMAL CASE NO. 1171, IN THE MATTER OF THE INVESTIGATION INTO COMMUNITY RENEWABLE ENERGY FACILITY PRACTICES IN THE DISTRICT,

FORMAL CASE NO. 1182, IN THE MATTER OF THE INVESTIGATION INTO THE IMPLEMENTATION OF INTEGRATED DISTRIBUTION SYSTEM PLANNING FOR ELECTRIC UTILITIES

INQUIRY OF COMMISSIONER BEVERLY

This inquiry is issued pursuant to D.C. Code §34-802, which gives each Commissioner independent authority to pursue any line of inquiry that the Commission itself could pursue. It is not an action of the full Commission and does not become one unless and until it is adopted by the full Commission.

In my view, we need to immediately update our distributed energy resource (“DER”) interconnection regulations to address problems that have plagued our process, including inordinate delays, staggeringly high costs, an over-reliance on distribution system upgrades instead of low-cost ways to increase hosting capacity, a lack of transparency, minimal enforcement, and no defined dispute resolution process. Addressing these problems not only facilitates the will of the legislature in

fostering DER but also helps address the energy affordability crisis. The sooner we act on this, the sooner more District ratepayers can get access to net metering to offset their rising electricity bills.¹

I have drafted rules in Attachment A to propose an overhaul of our small generator interconnection rules in Chapter 40 of the Commission's regulations to bring the District up-to-date with best practices. This Commission has now missed two cycles of updates by the Interstate Renewable Energy Council ("IREC"), in 2019 and 2023. This draft rulemaking is based on IREC's 2023 Model Interconnection Procedures² and the New Mexico Public Service Commission's interconnection regulations,³ while maintaining recent changes to ensure cost transparency and addressing recommendations from a stakeholder working group report in *Formal Case No. 1050*.⁴ Prior iterations of the Commission's Chapter 40 included interconnection applications and agreements as appendices, which no longer appear on our website. This draft rulemaking also aims to rectify that issue.

These draft regulations also work in parallel to many of the changes in the Guiding Renewable Interconnection and Distribution Act ("GRID Act"), co-introduced by Councilmembers Allen, Parker, Pinto, Frumin, Lewis George, Robert White, and Nadeau on February 24, 2026.⁵ These draft regulations differ from the GRID Act in that the Act amends the existing regulations, potentially memorializing the District's outdated rules, while this rulemaking provides an entire overhaul to modernize the regulations. Proceeding without this regulatory overhaul risks enshrining outdated regulations that can slow down interconnection. For example, the Interconnection Agreement in these draft regulations streamlines the process for beginning interconnected DER operation by establishing a single interconnection agreement and additional clarity, replacing the more opaque, two-part interconnection agreement process in the existing rules. That two-part interconnection process, an

¹ This has a corresponding effect on RPS compliance fees which show up in the generation portion of bills. According to the most recent RPS report (calendar year 2025), 379,947 MWh of solar renewable energy credits ("SRECs") were retired for 2025. The statutory mandate for solar under the RPS for 2025 is 4.3% of retail sales. Retail sales for 2025 were 10,233,725 MWh, according to Pepco's annual assessment report. In addition, sales to the District Government have been given a temporary exemption, making the RPS requirements easier to achieve (for 2025, reducing eligible retail sales by 409,269 MWh to 9,824,456 MWh). Even with this exemption, the SREC retirements only reached 3.87% of eligible retail sales, a shortfall of 42,505 MWh, or 10% of the required 422,452 MWh. Put differently, the District achieved 90% of the mandated solar carve-out for 2025, even with a 4% reduction in RPS-covered retail sales. Without the District Government sales exemption, the District would have only reached 3.71% solar, facing a shortfall of 60,103 MWh.

I note that the Commission's 2025 RPS Report relied on RPS reporting rather than the Pepco Assessment figure for retail sales, which is why the Commission reported 3.93% compliance toward the RPS (while still representing a shortfall, slightly higher than my calculation of 3.87%).

² Interstate Renewable Energy Council, Model Interconnection Procedures 2023 Edition.

³ 17.9.568.1 NMAC - Rp, 17.9.568.1 NMAC, 02/14/2023

⁴ *Formal Case No. 1050*, Interim/Status Report for FC 1050 Technical Conference. December 10, 2025.

⁵ B26-0602 - Guiding Renewable Interconnection and Distribution (GRID) Amendment Act of 2026

artifact of outdated regulations, leaves DER languishing in the queue waiting for a second signature from Pepco that provides “authorization to operate,” even after a DER is fully installed and has received proof of electrical inspection by the Department of Buildings.

I request that interested persons or parties provide comments on the draft rulemaking within 45 days and reply comments (if desired) in 60 days. I look forward to reviewing comments from interested stakeholders.

ATTACHMENT A – DRAFT RULEMAKING

PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

DRAFT RULEMAKING

**RM40-2026-01, IN THE MATTER OF 15 DCMR CHAPTER 40 – DISTRICT OF COLUMBIA
SMALL GENERATOR INTERCONNECTION RULES,**

1. The Public Service Commission of the District of Columbia (Commission), pursuant to its authority under D.C. Official Code Sections 2-505 and 34-802,⁶ hereby gives notice of its intent to amend 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), in not less than thirty (30) days after the publication of this Notice in the *District of Columbia Register*.

2. Chapter 40 is repealed and replaced based on the most recent update to the Model Interconnection Procedures by the Interstate Renewable Energy Council⁷ and the New Mexico Public Service Commission’s interconnection regulations,⁸ while maintaining recent changes to ensure cost transparency and addressing recommendations from a stakeholder working group report in *Formal Case No. 1050*.⁹

**Chapter 40, DISTRICT OF COLUMBIA SMALL GENERATOR INTERCONNECTION
RULES, of Title 15 DCMR, PUBLIC UTILITIES AND CABLE
TELEVISION, is repealed and replaced as follows:**

4000 PURPOSE AND APPLICABILITY

4000.1 These Small Generator Interconnection Rules (“SGIR”) are applicable to all District of Columbia interconnections of Distributed Energy Resources (“DER”) satisfying the following criteria:

- (a) The total Nameplate Capacity of the DER is equal to or less than twenty (20) megawatts (“MW”).
- (b) The DER is designed to operate in parallel with the Electric Distribution System.

4001 HOSTING CAPACITY ANALYSIS

4001.1 Each EDC shall maintain public hosting capacity analysis maps on its website displaying,

⁶ D.C. Official Code §§ 2-505 and 34-802.

⁷ Interstate Renewable Energy Council, Model Interconnection Procedures 2023 Edition.

⁸ 17.9.568.1 NMAC - Rp, 17.9.568.1 NMAC, 02/14/2023

⁹ *Formal Case No. 1050*, Interim/Status Report for FC 1050 Technical Conference. December 10, 2025.

at a minimum: load profiles, existing generation profiles, queued generation profiles, total generation profiles, and relevant notes for every substation and feeder. The map shall include functioning queries and/or search functions, and the ability to download shapefiles.

- 4001.2 Within 90 days of the date of the promulgation of these regulations, each EDC shall submit a hosting capacity analysis methodology in *Formal Case No. 1050* for Commission approval. The filing must include sufficient granularity for the Commission and third parties to independently test and validate the methodology to ensure its accuracy and reliability.
- 4001.3 In addition to a comment period, the Commission shall convene at least one (1) technical demonstration for the EDC to present its hosting capacity analysis methodology,
- 4001.4 Within 60 days of the approval of an EDC's hosting capacity analysis methodology, an EDC shall submit a data validation plan for Commission approval. Upon approval, an EDC shall file annual hosting capacity data validation reports in *Formal Case No. 1050* by June 30th of each year.

4002 ORDER OF REVIEW

- 4002.1 Optional Pre-Application Report: Potential applicants may request this optional report to acquire information about system conditions at their proposed Point of Interconnection without submitting a full Interconnection Application.
- 4002.2 Interconnection Review: There are three interconnection review paths: Simplified Process, Fast Track, and Detailed Study, with options to undertake Supplemental Review and/or an Applicant Options Meeting prior to entering Detailed Study. At any time, any Applicant may elect to apply directly under Detailed Study or to move into Detailed Study. The EDC will process the Applications in the order of their queue position as established by Section 4003.3 unless the Application is part of a group study pursuant to Section 4003.6.

The three interconnection review paths are:

Simplified Process ("Level A"): For Certified inverter-based DERs that have a Nameplate Rating of 50 kilowatts (kW)¹⁰ or less and an Export Capacity of 25 kW or less.

Fast Track ("Level B"): For DERs that have a Nameplate Rating of up to 5 megawatts (MW), depending on line capacity and distance from substation, as detailed in the table in Section 4006.2(a).

Detailed Study ("Level C"): For all DERs that do not qualify for, or pass through, the Simplified Process or Fast Track.

4003 APPLICATION SUBMISSION AND PROCESSING

- 4003.1 Submission: The Applicant shall submit the Application (in either Attachment C or

¹⁰ All rated capacity figures in the SGIR are measured in alternating current (AC).

Attachment D) to the EDC along with the applicable processing fee or deposit. No additional fees for processing of the Application shall be required unless specified in this chapter.

4003.2 Completeness Review: The EDC shall record the date and time of the Application's receipt. The EDC shall notify the Applicant within two (2) Business Days that the Application has been received. Within five (5) Business Days of receipt, the EDC shall notify the Applicant whether the Application is complete. If the Application is incomplete, the EDC shall provide the Applicant with a list of all information that the Applicant must provide to complete the Application. The Applicant must provide the requested information within ten (10) Business Days, or the Application will be deemed withdrawn.

4003.3 The Queue: The EDC shall assign the Application a queue position based on when it is deemed complete under Section 4003.2. Queue positions shall be integers in numerical order. The EDC shall maintain a single queue, sortable by feeder. The queue shall contain all of the information listed in Attachment A. The queue shall be publicly available on the EDC's website and shall be updated at least monthly.

4003.4 Modifications to an Application or to an Existing DER:

- (a) At any time after an Application is deemed complete, including after the receipt of Fast Track, Supplemental Review, System Impact Study, and/or Facilities Study results, the Applicant or the EDC may identify and propose modifications to the planned DER that may improve the costs and benefits (including reliability) of the DER, and/or the ability of the EDC to accommodate the interconnection. An existing DER may also propose such modifications. The Applicant shall submit to the EDC, in writing, all proposed modifications to any information provided in the Application or Interconnection Agreement for existing DERs. The EDC is not permitted to unilaterally modify the Application.
- (b) Within ten (10) Business Days of receipt of a proposed modification, the EDC shall notify the Applicant whether a proposed modification to either an Application or an existing DER constitutes a Material Modification.
 - (1) If the proposed modification is determined to be a Material Modification, then the EDC shall notify the Applicant in writing that the Applicant may: 1) withdraw the proposed modification; or 2) proceed with a new Application for such modification. The Applicant shall provide the EDC with its decision in writing within ten (10) Business Days after being provided the Material Modification determination results. If the Applicant does not provide its decision, the proposed modification shall be deemed withdrawn.
 - (2) If the proposed modification is determined not to be a Material Modification, then the EDC shall notify the Applicant in writing that the modification has been accepted and that the Applicant shall retain its eligibility for interconnection, including its place in the interconnection queue. Existing DERs may make the modification without requiring a new Application.
- (c) Any dispute as to the EDC's determination that a modification constitutes a Material Modification shall proceed in accordance with the dispute resolution provisions in

Section 4008.

- (d) Any modification to machine data, equipment configuration, or to the interconnection site of the DER not agreed to in writing by the EDC and the Applicant may be deemed a withdrawal of the Application and may require submission of a new Application, unless proper notification of each Party by the other as described in Section 4003.4 is provided. The terms of the Interconnection Agreement apply for existing DERs.

4003.5 Site Control: Documentation of site control must be submitted with the Application. Site control may be demonstrated by:

- (a) Ownership of, or a leasehold interest in, or a right to develop a site for the purpose of constructing a DER;
- (b) A fully executed option to purchase or acquire a leasehold site for such purpose; or
- (c) A fully executed agreement demonstrating exclusivity or other business relationship between the Applicant and the entity having the authority to grant the Applicant the right to possess or occupy a site for such purpose.

4003.6 Group Study: In some instances, typically where multiple DERs are electrically interrelated, studying them jointly in a group study process may provide cost and time efficiencies. If the EDC and the Applicant mutually agree, the Application may be studied in a group with other applications.

4003.7 Continued Review: If an Application is denied approval for interconnection under one review path, but the Applicant decides to continue with review under another review path within ten (10) Business Days of receipt of that denial, the Applicant shall retain its original queue position.

4003.8 An Applicant shall pay the following application fee to an EDC at the time it delivers its interconnection application:

- (a) For a Simplified (Level A) Interconnection Request, there is no application fee.
- (b) For a Fast Track (Level B) Interconnection Request, the application fee is \$300, or \$150 if non-exporting.
- (c) For a Detailed Study (Level C) Interconnection Request, the application fee is \$300 + \$1 per kW of nameplate capacity, or \$150 + \$0.50 per kW of nameplate capacity if non-exporting.
- (d) The application fees shall be posted on an EDC's website and listed in an EDC's tariffs.

4004 APPLICABLE STANDARDS

4004.1 Unless waived by an EDC, a DER must comply with the standards identified in Attachment B, as applicable.

4005 PRE-APPLICATION REPORT

4005.1 Pre-Application Report Request:

- (a) A Pre-Application Report Request shall include:
 - (1) Contact information (name, address, phone number, and email address).
 - (2) A proposed Point of Interconnection. The proposed Point of Interconnection shall be defined by latitude and longitude, site map, street address, EDC 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 Interconnection.
 - (3) DER type (e.g., solar, wind, combined heat and power, storage, solar-plus-storage, etc.).
 - (4) Nameplate Rating and Export Capacity (if different).
 - (5) Single- or three-phase configuration.
 - (6) Whether the DER is stand-alone or will service onsite load.
 - (7) Whether new service is requested.
- (b) In requesting a Pre-Application Report, a potential Applicant understands that:
 - (1) The existence of “available capacity” in no way implies that an interconnection up to this level may be completed without impacts because there are many variables studied as part of the interconnection review process.
 - (2) The EDS is dynamic and subject to change.
 - (3) Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Application.

4005.2 Pre-Application Report

- (a) Within ten (10) Business Days of receipt of a completed Pre-Application Report Request, the EDC shall provide a Pre- Application Report to the Applicant. The Pre-Application Report shall include the following information, if available:
 - (1) Total capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site, based on the thermal ratings of the EDC’s EDS.
 - (2) Aggregate existing Export Capacity (MW) interconnected to the substation/area bus or bank and circuit likely to serve proposed site.

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- (3) Aggregate queued Export Capacity (MW) proposing to interconnect to the substation/area bus or bank and circuit likely to serve proposed site.
 - (4) Available capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site, based on the thermal ratings of the EDC's EDS. Available capacity is the total capacity less the sum of existing and queued Export Capacity, accounting for all load served by existing and queued DERs. Note: DERs may remove available capacity in excess of their Export Capacity if they serve on-site load and utilize export controls which limit their Export Capacity to less than their Nameplate Rating.
 - (5) Whether the proposed DER 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 site.
 - (8) Approximate circuit distance between the proposed site and the substation.
 - (9) Relevant Line Section(s) and substation actual or estimated peak load and minimum load data.
 - (10) Number and rating of protective devices and number and type of voltage regulating devices between the proposed site and the substation/area bus.
 - (11) Whether or not three-phase power is available at the site and/or distance from three-phase service.
 - (12) Limiting conductor rating from proposed Point of Interconnection to distribution substation.
 - (13) Based on proposed Point of Interconnection, 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) Any other information the EDC deems relevant to the Applicant.
- (b) The Pre-Application Report need only include pre-existing data. A Pre-Application Report request does not obligate the EDC 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.
- (c) 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.

4006.1

Simplified Process (Level A): Screening Criteria and Process for Certified Inverter-Based DERs with a Nameplate Rating of 50 kW or Less and an Export Capacity of 25 kW or Less

- (a) Eligibility: Simplified Process review is available to any Certified inverter-based DER that has a Nameplate Rating that does not exceed 50 kW and an Export Capacity that does not exceed 25 kW.
- (b) Application: An Applicant must submit a Simplified Process Application using the standard form provided in Attachment C , which may be sent electronically through the EDC's website or to a recipient designated by the EDC. An Applicant executes the standard Interconnection Agreement for the Simplified Process by submitting a Simplified Process Application. The EDC may not charge an application fee for Simplified Process review.
- (c) Applicable Screens: The EDC shall evaluate the Application using the following screens:
 - (1) *Certified Equipment Screen*. The DER must utilize an inverter Certified to UL 1741 Supplement SB.
 - (2) *Minimum Load Screen*. For interconnection of a DER to a radial distribution circuit, the DER's Export Capacity, aggregated with the Export Capacity of all other DERs on a Line Section, will not exceed 100 percent of the Line Section's¹¹ Relevant Minimum Load as most recently measured at the substation or calculated for the Line Section.
 - (3) *Shared Secondary Transformer Screen*. If the DER is to be interconnected on a single-phase shared secondary, then the aggregate generation capacity on the shared secondary, including the DER's Export Capacity, will not exceed 65 percent of the transformer nameplate power rating.
 - (4) *Service Imbalance Screen*. If the DER is single-phase and is to be interconnected on a transformer center tap neutral of a 240-volt service, its addition will not create an imbalance between the two sides of the 240-volt service of more than 20 percent of the nameplate rating of the service transformer.
 - (5) *Network Screen*. For interconnection of a DER within a Spot Network or Area Network, the aggregate Nameplate Rating including the DER's Nameplate Rating may not exceed 50 percent of the Spot Network or Area

¹¹ Clarification of the relevant Line Section is sometimes necessary. If the Point of Common Coupling is downstream of a line recloser, include those medium voltage (MV) Line Sections from the recloser to the end of the feeder. If the 100 percent criterion is passed for aggregate distributed generation and Relevant Minimum Load at first upstream recloser, then the screen is passed. If the Point of Common Coupling is upstream of all line reclosers (or none exist), include aggregate distributed generation relative to Relevant Minimum Load of the feeder measured at the substation. If the 100 percent criterion is passed for the aggregate distributed generation and Relevant Minimum Load for the whole feeder, then the screen is passed. A fuse must be manually replaced and is therefore not considered an automatic sectionalizing device.

Network's Relevant Minimum Load. Alternately, if the EDC does not have minimum load data for the Spot or Area Network, the EDC may select any of the following methods to determine anticipated minimum load:

- (A) Five percent of the Spot Network or Area Network's maximum load in the previous year;
 - (B) The Applicant's good faith estimate, if provided; or
 - (C) The EDC's good faith estimate, if provided in writing to the Applicant along with the reasons why the EDC considered the other methods to estimate minimum load inadequate.
- (d) Time to Process Screens: Within seven (7) Business Days after the EDC notifies the Applicant that the Application is complete, the EDC shall notify the Applicant whether the DER meets all of the applicable Simplified Process screens.
- (e) Screens Failure: Despite the failure of one or more screens, the EDC, at its sole option, may approve the interconnection provided such approval is consistent with safety and reliability. If the EDC cannot determine that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the EDC shall provide the Applicant with the screen results. If one or more screens are not passed, the EDC shall provide, in writing, the specific screens that the Application failed, including the technical reason for failure. The EDC shall provide information and detail about the specific system threshold or limitation causing the Application to fail the screen. In addition, the EDC shall allow the Applicant to select one of the following, at the Applicant's option:
- (1) Undergo Supplemental Review, in accordance with Section 4006.3; or
 - (2) Continue evaluating the Application under Detailed Study, in accordance with Section 4006.5.

The Applicant must notify the EDC of its selection within ten (10) Business Days or the Application will be deemed withdrawn.

- (f) Approval: If the proposed interconnection passes the screens, the Application shall be approved, and the EDC will provide the Applicant an executable Interconnection Agreement (Attachment C) within the following timeframes:
- (1) If the proposed interconnection requires no construction of Interconnection Facilities or EDS Modifications other than metering, the EDC shall provide the Applicant with a copy of the Simplified Process Application form, signed by the EDC, forming the Simplified Process Interconnection Agreement, at the same time that the screen results are provided. If the EDC does not notify an Applicant whether an Application is approved or denied in writing within twenty (20) Business Days after notification of the Simplified Process review results, the Interconnection Agreement signed by the Applicant as part of the Simplified Process Application shall be deemed effective.

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- (2) If the proposed interconnection requires construction of Interconnection Facilities or EDS Modifications, the Application shall be processed under Fast Track starting at Section 4006.2 and shall use the Interconnection Agreement in Attachment D associated with the Fast Track process. The Applicant shall be notified of this upon receiving notification of the screen results.
- (g) Reference Point of Applicability (“RPA”) Review: This process shall occur concurrently with the Simplified Process screening pursuant to Section 4006.1(c):
- (1) Within five (5) Business Days after the EDC notifies the Applicant that the Application is complete, the EDC shall review the RPA denoted in the application and determine if it is appropriate.
- (2) If it is determined that the RPA is appropriate, the EDC will notify the Applicant when it provides the screen results and proceed according to Section 4006.1(e-f).
- (3) If the EDC determines that the RPA is inappropriate, the EDC will notify the Applicant in writing, including an explanation as to why it requires correction. The Applicant shall provide the EDC with a corrected Application with the proper RPA within five (5) Business Days of notification. During this time, the EDC will proceed with applying the Simplified Process screens. The EDC shall review the revised Application within five (5) Business Days of receipt to determine if the revised RPA has been appropriately denoted. If correct, the EDC will proceed according to Section 4006.1(c) but be provided with a total of twelve (12) Business Days to provide the Simplified Process screen results. If the Applicant does not provide the appropriate location or request an extension of time within the deadline, the Application will be deemed withdrawn.
- (h) Notice of Start Date & Inspection: The Interconnection Customer shall provide the EDC with at least ten (10) Business Days’ notice of the anticipated start date of the DER. Within ten (10) Business Days of receiving the notice of the anticipated start date of the DER, the EDC may conduct an inspection of the DER at a time mutually agreeable to the Parties. If the EDC fails to conduct an inspection or request an extension of up to five (5) business days, the inspection is waived. If the DER passes the inspection, the EDC shall provide written notice of the passage within three (3) Business Days. If a DER initially fails an EDC inspection, the EDC shall offer to redo the inspection at the Interconnection Customer’s expense at a time mutually agreeable to the Parties. If the EDC determines that the DER fails the inspection, the EDC must provide the Interconnection Customer with a written explanation detailing the reasons for the failure and any standards violated. If the EDC determines no inspection is necessary, it shall notify the Interconnection Customer within three (3) Business Days of receiving the notice of the anticipated start date.
- (1) If the DER is a CREF, the EDC shall complete the inspection of the interval production meter in accordance with Section 907.4 prior to the interconnection customer’s anticipated start date.
- (i) Meter Change: If operation of the DER requires a meter change, the EDC shall

complete the meter change prior to the interconnection customer's anticipated start date.

- (j) Operation: An Interconnection Customer may begin interconnected operation of a DER provided that there is an Interconnection Agreement in effect, the EDC has received proof of the electric code official's approval, and the DER has received written notice that it passed any inspection required by the EDC or the inspection has been waived.

4006.2

Fast Track (Level B): Screening Criteria and Process for DERs Meeting Specified Size Criteria Up to 5 MW, Depending on Line Capacity and Distance from Substation

- (a) Eligibility: Fast Track review is available to any DER that has an Export Capacity that does not exceed the limits identified in the table below, which vary according to the voltage of the line at the proposed Point of Interconnection. DERs located within 2.5 miles of a substation and on a main distribution line with minimum 600-amp capacity are eligible for Fast Track interconnection under higher thresholds.

Line Voltage	Fast Track Eligibility	
	Regardless of location	On $\geq$ 600 amp line and $\leq$ 2.5 miles from substation
$\leq$ 5 kV	< 1 MW	< 2 MW
5 kV – $\leq$ 15 kV	< 2 MW	< 3 MW
15 kV – $\leq$ 30 kV	< 3 MW	< 4 MW
30 kV – 69 kV	$\leq$ 4 MW	$\leq$ 5 MW

- (b) Application: An Applicant must submit a Fast Track Application using the standard form provided in Attachment D, which may be submitted through the EDC's website or sent electronically to a recipient designated by the EDC.
- (c) Applicable Screens:
- (1) *Minimum Load Screen*. For interconnection of a DER to a radial distribution circuit, the DER's Export Capacity, aggregated with all other generation capable of exporting energy on a Line Section, will not exceed 100 percent of the Line Section's¹² Relevant Minimum Load as most recently measured at the substation or calculated for the Line Section.
 - (2) *Inadvertent Export Screen*. For interconnection of a proposed DER that can introduce Inadvertent Export, where the Nameplate Rating of the DER minus the Export Capacity is greater than 250 kW, the following threshold must be met. With a power change equal to the Nameplate Rating minus the

¹² Clarification of the relevant Line Section is sometimes necessary. If the Point of Common Coupling is downstream of a line recloser, include those medium voltage ("MV") Line Sections from the recloser to the end of the feeder. If the 100% criterion is passed for aggregate distributed generation and Relevant Minimum Load at first upstream recloser, then the screen is passed. If the Point of Common Coupling is upstream of all line reclosers (or none exist), include aggregate distributed generation relative to Relevant Minimum Load of the feeder measured at the substation. If the 100% criterion is passed for the aggregate distributed generation and Relevant Minimum Load for the whole feeder, then the screen is passed. A fuse must be manually replaced and is therefore not considered an automatic sectionalizing device.

Export Capacity, the change in voltage at the point on the medium voltage (primary) level nearest the Point of Interconnection does not exceed three percent (3%). Voltage change will be estimated applying the following formula:

Formula	$\frac{(R_{SOURCE} \times \Delta P) - (X_{SOURCE} \times \Delta Q)}{V^2}$
Where: $\Delta P = (\text{DER apparent power Nameplate Rating} - \text{Export Capacity}) \times \text{PF},$ $\Delta Q = (\text{DER apparent power Nameplate Rating} - \text{Export Capacity}) \times \sqrt{(1 - PF^2)},$ R_{SOURCE} is the grid resistance, X_{SOURCE} is the grid reactance, V is the grid voltage, PF is the power factor	

- (3) *Fault Current Contribution Screen.* The DER, aggregated with other generation on the distribution circuit, will not contribute more than ten percent (10%) to the distribution circuit's maximum Fault Current at the point on the primary nearest the proposed Point of Interconnection.
- (4) *Short Circuit Interrupting Capability Screen.* The DER, aggregated with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or EDC customer equipment on the system, to exceed ninety percent (90%) of the short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds ninety percent (90%) of the short circuit interrupting capability.
- (5) *Line Configuration Screen.* The DER 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 EDS due to a loss of ground during the operating time of any Anti-Islanding function.

Primary Distribution Line Configuration	Type of Interconnection to Primary Distribution Line	Results/Criteria
Three-phase, three-wire	Three-phase or single-phase, phase-to-phase	Pass Screen
Three-phase, four-wire	Three-phase or single-phase, line-to-neutral	Pass Screen

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- (6) *Shared Secondary Transformer Screen.* If the DER is to be interconnected on a single-phase shared secondary, then the aggregate Export Capacity on the shared secondary, including the DER's Export Capacity, will not exceed sixty- five percent (65%) of the transformer nameplate power rating.
- (7) *Service Imbalance Screen.* If the DER is single-phase and is to be interconnected on a transformer center tap neutral of a 240-volt service, its addition will not create an imbalance between the two sides of the 240-volt service of more than twenty percent (20%) of nameplate rating of the service transformer.
- (8) *Transient Stability Screen.* The DER's Nameplate Rating, in aggregate with other generation interconnected to the distribution low-voltage side of the substation transformer feeding the distribution circuit where the DER proposes to interconnect, will not exceed 10 MW 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 busses from the Point of Interconnection), or the proposed DER shall not have interdependencies, known to the EDC, with earlier-queued Interconnection Requests, that would necessitate further study.
- (9) *Transmission Screen.* The DER's Point of Common Coupling will not be on a transmission line.
- (10) *Network Screen.* For interconnection of a DER within a Spot Network or Area Network, the aggregate Nameplate Rating including the DER's Nameplate Rating may not exceed 50 percent of the Spot Network or Area Network's Relevant Minimum Load. Alternately, if the EDC does not have minimum load data for the Spot or Area Network, the EDC may select any of the following methods to determine anticipated minimum load:
- (A) Five percent of the Spot Network or Area Network's maximum load in the previous year;
 - (B) The Applicant's good faith estimate, if provided; or
 - (C) The EDC's good faith estimate if provided in writing to the Applicant along with the reasons why the EDC considered the other methods to estimate minimum load inadequate.
- (d) Time to Process Under Screens: Within fifteen (15) Business Days after the EDC notifies the Applicant that the Application is complete, the EDC shall notify the Applicant whether the DER meets all of the applicable Fast Track screens.
- (e) Screens Failure: Despite the failure of one or more screens, the EDC, at its sole option, may approve the interconnection provided it concludes such approval is consistent with safety and reliability. If the EDC cannot determine that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the EDC shall provide the Applicant with the screen results. If one or more screens are not passed, the EDC shall provide, in writing, the specific screens that the Application failed, including the technical reason for failure. The EDC shall

provide information and details about the specific system threshold or limitation causing the Application to fail the screen. In addition, the EDC shall allow the Applicant to select one of the following, at the Applicant's option:

- (1) Undergo Supplemental Review in accordance with Section 4006.3; or
- (2) Continue evaluating the Application under Detailed Study.

Upon receipt, the Applicant must notify the EDC of its selection within ten (10) Business Days or the Application will be deemed withdrawn.

(f) Approval: If the proposed interconnection passes the screens, fails the screens but passes Supplemental Review, or the EDC determines that the project can proceed consistent with safety and reliability despite failure of one or more screens, the Application shall be approved, and the EDC will provide the Applicant with an executable Interconnection Agreement (Attachment E) within the following timeframes:

- (1) If the proposed interconnection requires no construction of Interconnection Facilities or EDS modifications other than metering, the EDC shall provide the Interconnection Agreement to the Applicant at the same time that the EDC provides notification of Fast Track or Supplemental Review results. An Applicant may be assigned a pro rata share of EDS upgrade costs in accordance with Section 4007.7 if an EDS Upgrade has been constructed in the past 3 years.
- (2) If the proposed interconnection requires only Interconnection Facilities or Minor System Modifications, the EDC shall provide a cost estimate and construction schedule along with the Interconnection Agreement within fifteen (15) business days after notification of the Fast Track or Supplemental Review results. The cost estimate and construction schedule shall include a timeline for the expected completion of the addition of Interconnection Facilities or Minor System Modifications to the Electric Distribution System and an itemization of estimated costs that, at a minimum, includes a breakdown of labor and capital expenditures for each job activity and proposed piece of equipment.
- (3) If the proposed interconnection requires EDS Modifications, the EDC shall provide a technical explanation demonstrating the need for the identified modifications. The EDC shall demonstrate that required functionalities are not satisfied by employing IEEE STD 1547 certified and UL 1741 SA listed equipment. The EDC shall provide an Interconnection Agreement along with a cost estimate letter within (20) Business Days after notification of Fast Track or Supplemental Review results, or the EDC may notify the Applicant within five (5) Business Days of notification of Fast Track or Supplemental Review results that the EDC will need to complete a Facilities Study under Section 4006.5(e) to determine the necessary EDS Modifications. The cost estimate letter shall include: an analysis of the additional hosting capacity enabled by the EDS modifications, a construction schedule, and an itemization of estimated costs for the pro-rata share of the EDS Modifications required for the Applicant's DER to

interconnect that, at a minimum, includes a breakdown of labor and capital expenditures for each job activity and proposed piece of equipment. An Applicant shall be assigned a pro-rata share of for proportional use (based on export capacity) of the EDS upgrades in accordance with Section 4007.7.

(4) EDS Modification costs for CREFs shall be allocated as follows, subject to funding availability:

(A) The total EDS Modification costs for shared allocation for CREFs shall be capped at \$500,000 per calendar year or as otherwise determined by the Commission.

(B) If funding is available, EDS Modification cost responsibility shall be assigned as follows:

i. For EDS Modification costs of \$50,000 or less, fifty percent (50%) of the costs shall be paid for by the CREF Interconnection Customer and fifty percent (50%) of the costs paid for by the EDC.

ii. For EDS Modification costs of over \$50,000, the portion paid by the EDC shall be capped at \$25,000. The CREF Interconnection Customer shall pay the balance of the EDS Modification costs after the EDC portion has been subtracted.

(g) RPA Review: This process shall occur concurrently with Fast Track screening pursuant to Section 4006.2(c):

(1) Within five (5) Business Days after the EDC notifies the Applicant that the Application is complete, the EDC shall review the RPA denoted by the Applicant and determine if it is appropriate.

(2) If it is determined that the RPA is appropriate, the EDC will notify the Applicant when it provides the screen results and proceed according to Section 4006.2(e-f).

(3) If the EDC determines that the RPA is inappropriate, the EDC will notify the Applicant in writing, including an explanation as to why it requires correction. The Applicant shall provide the EDC with a corrected Application with the proper RPA within five (5) Business Days of notification. During this time, the EDC will proceed with applying Fast Track screens. The EDC shall review the revised Application within five (5) Business Days of receipt to determine if the revised RPA has been appropriately denoted. If correct, the EDC will proceed according to Section 4006.2(e-f). If the Applicant does not provide the appropriate location or request an extension of time within the deadline, the Application will be deemed withdrawn.

(h) Interconnection Agreement Execution: An Applicant that receives an

Interconnection Agreement executed by the EDC shall have ten (10) Business Days to execute the agreement and return it to the EDC.

- (i) Notice of Start Date & Inspection: The Interconnection Customer shall provide the EDC with at least ten (10) Business Days' notice of the anticipated start date of the DER. Within ten (10) Business Days of receiving the notice of the anticipated start date of the DER, the EDC may conduct an inspection of the DER at a time mutually agreeable to the Parties. If the EDC fails to conduct an inspection or request an extension of up to five (5) business days, the inspection is waived. If the DER passes the inspection, the EDC shall provide written notice of the passage within three (3) Business Days. If a DER initially fails the EDC inspection, the EDC shall offer to redo the inspection at the Interconnection Customer's expense at a time mutually agreeable to the Parties. If the EDC determines that the DER fails the inspection, the EDC must provide the Interconnection Customer with a written explanation detailing the reasons and any standards violated. If the EDC determines no inspection is necessary, it shall notify the Interconnection Customer within three (3) Business Days of receiving the notice of the anticipated start date.
 - (1) If the DER is a CREF, the EDC shall complete the inspection of the interval production meter in accordance with Section 907.4 prior to the interconnection customer's anticipated start date.
- (j) Meter Change: If operation of the DER requires a meter change, the EDC shall complete the meter change prior to the interconnection customer's anticipated start date.
- (k) Operation: An Interconnection Customer may begin interconnected operation of a DER provided that there is an Interconnection Agreement in effect; the EDC has received proof of the electric code official's approval; and the DER has received written notice that it passed any inspection required by the EDC, or the inspection has been waived.
- (l) Final Interconnection Costs
 - (1) The EDC shall provide the following information to the Interconnection Customer regarding the Interconnection Facilities or EDS Modification costs:
 - (A) The invoice containing the actual unit costs of the Interconnection Facilities and EDS Modifications, and the pro-rata share of those costs owed by the Interconnection Customer based on export capacity, shall be sent to the Interconnection Customer within fifteen (15) business days of the completion of the Interconnection Facilities and/or EDS Modifications. The invoice to the Interconnection Customer shall include an itemization of costs that, at a minimum, includes the exact breakdown of labor and capital expenditures for each job activity and installed piece of equipment. The invoice shall be sufficiently detailed such that the Interconnection Customer and the Commission can understand the exact breakdown of the itemized costs for each job activity and

installed piece of equipment.

- (B) If the total actual costs for the project are more than fifteen percent (15%) above the initial cost estimate, the EDC shall send the Interconnection Customer an interconnection cost variance report on the cost variance between the initial cost estimate and the actual costs incurred within twenty (20) business days after the completion of the Interconnection Facilities and/or EDS Modifications. The Interconnection Cost Variance Report shall include an itemization of costs, variances and an explanation for each variance that, at a minimum, includes the exact breakdown of labor and capital expenditures for each job activity and installed piece of equipment. The Interconnection Cost Variance Report shall be sufficiently detailed such that a developer and the Commission can understand the exact breakdown of the itemized costs for each job activity and installed piece of equipment. The Interconnection Cost Variance Report shall be prepared at the EDC's expense.
- (2) The Interconnection Customer shall be responsible for the actual costs of Interconnection Facilities and/or EDS Modifications up to fifteen percent (15%) above the cost estimate governed by Subsection 4006.2(f)(2-4).
- (3) The EDC may track cost overruns that are fifteen percent (15%) above the initial cost estimate and request recovery of the account balance subject to the review of the Interconnection Task Force and approval of the Commission. Net cost overruns shall be tracked in a regulatory asset account. The EDC may be able to recover from ratepayers the net cost overruns if the Commission determines that such costs were prudently incurred. Net cost overruns deemed imprudently incurred shall not be recovered from District ratepayers.

4006.3

Supplemental Review

- (a) If the Applicant agrees to undergo Supplemental Review, it shall notify the EDC and submit a \$2,500 fee for the review in accordance with the timeline specified in Section 4006.1(e) or Section 4006.2(e).
- (b) Within twenty (20) Business Days of an Applicant's election to undergo Supplemental Review and payment of the fee, the EDC shall perform Supplemental Review using the screens set forth below, notify the Applicant of the results, and include with the notification a written report of the analysis and data underlying the EDC's determinations under the screens, including information about the specific system threshold or limitation causing the result.
- (c) Applicable Screens:
 - (1) *Minimum Load Screen.* Where twelve (12) months of Line Section minimum load data (including onsite load but not station service load served by the proposed DER) are available, can be calculated, estimated from existing data, or determined from a power flow model, the DER's Export Capacity aggregated with all other generation capable of exporting energy

on the Line Section¹³ is less than one hundred percent (100%) of the Relevant Minimum Load for all Line Sections bounded by automatic sectionalizing devices upstream of the proposed DER. If the minimum load data are not available, or cannot be calculated or estimated, the DER's Export Capacity aggregated with all other generation capable of exporting energy on the Line Section is less than 30 percent of the peak load for all Line Sections bounded by automatic sectionalizing devices upstream of the proposed DER.

- (A) Load that is co-located with load-following, non- exporting or export-limited generation should be appropriately accounted for.
 - (B) The EDC will not consider as part of the aggregate Export Capacity for purposes of this screen DER Export Capacity, including combined heat and power ("CHP") facility capacity, known to be already reflected in the minimum load data.
- (2) *Voltage and Power Quality Screen.* If the DER limits export pursuant to Section 4007.2, the Export Capacity instead of Nameplate Rating must be utilized in any analysis done for this screen, including power flow simulations. In aggregate with existing generation on the Line Section:
- (A) The voltage regulation on the Line Section can be maintained in compliance with relevant requirements under all system conditions;
 - (B) The voltage fluctuation is within acceptable limits as defined by IEEE Standard 1547; and
 - (C) The harmonic levels meet IEEE Standard 1547 limits at the Reference Point of Applicability.
- (3) *Supplemental Grounding Screen.* If the DER failed the Line Configuration Screen (Section 4006.2(c)(5)):
- (B) For DERs with a rotating machine, effective grounding must be maintained.
 - (C) For DERs with a three-phase inverter, the EDC shall apply one of the following screens to evaluate whether the DER is effectively grounded:
 - i. The line-to-neutral connected load on the feeder or Line

¹³ Clarification of the relevant Line Section is sometimes necessary. If the Point of Common Coupling is downstream of a line recloser, include those medium voltage (MV) Line Sections from the recloser to the end of the feeder. If the 100 percent criterion is passed for aggregate distributed generation and Relevant Minimum Load at first upstream recloser, then the screen is passed. If the Point of Common Coupling is upstream of all line reclosers (or none exist), include aggregate distributed generation relative to Relevant Minimum Load of the feeder measured at the substation. If the 100 percent criterion is passed for the aggregate distributed generation and Relevant Minimum Load for the whole feeder, then the screen is passed. A fuse must be manually replaced and is therefore not considered an automatic sectionalizing device.

Section is greater than thirty- three percent (33%) of peak load on the feeder or Line Section.

ii. If using a supplemental grounding software tool:

1. The tool determines that supplemental grounding is not required to maintain effective grounding.
2. If the tool determines that supplemental grounding is required, the Applicant must agree to modify the DER to include supplemental grounding.

iii. If using a detailed hosting capacity analysis that incorporates evaluation of temporary overvoltage risk for inverters, the Nameplate Rating of the DER is below the available hosting capacity at the Point of Interconnection.

(4) *Safety and Reliability Screen.* The location of the proposed DER and the aggregate Export Capacity on the Line Section do not create impacts to safety or reliability that cannot be adequately addressed without Detailed Study review. If the DER limits export pursuant to Section 4007.2, the Export Capacity must be included in any analysis including power flow simulations, except when assessing Fault Current contribution. To assess Fault Current contribution, use the rated Fault Current; for example, the Applicant may provide manufacturer test data (pursuant to the Fault Current test described in IEEE Standard 1547.1TM-2020 clause 5.18) showing that the Fault Current is independent of the Nameplate Rating. The EDC shall give due consideration to the following factors and others in determining potential impacts to safety and reliability in applying this screen:

- (A) Whether the Line Section has significant minimum loading levels dominated by a small number of customers (i.e., several large commercial customers).
- (B) Whether there is an even or uneven distribution of loading along the feeder.
- (C) Whether the proposed DER is located in close proximity to the substation (i.e., < 2.5 electrical circuit miles), and whether the distribution line from the substation to the Point of Interconnection is composed of large conductor/feeder section (i.e., 600A class cable).
- (D) Whether the proposed DER incorporates a time delay function to prevent reconnection of the DER to the system until system voltage and frequency are within normal limits for a prescribed time.
- (E) Whether operational flexibility is reduced by the proposed DER, such that transfer of the Line Section(s) of the DER to a neighboring distribution circuit/substation may trigger overloads or voltage

issues.

(F) Whether the proposed DER utilizes Certified Anti-Islanding functions and equipment.

- (d) If the proposed interconnection passes the supplemental screens, the EDC shall approve the Application and provide the Applicant an executable Interconnection Agreement pursuant to the procedure set forth in Section 4006.2(f).
- (e) After receiving an Interconnection Agreement executed by the EDC, the Applicant shall proceed under the terms of the applicable level of review under which the Application was initially studied.

4006.4

Applicant Options Meeting

- (a) If the EDC determines the Application cannot be approved without evaluation under Detailed Study, at the time the EDC notifies the Applicant of either the Simplified Process or Fast Track review or Supplemental Review results, the EDC shall provide the Applicant the option of proceeding to Detailed Study review or of participating in an Applicant Options Meeting with the EDC to review possible DER modifications or the screen analysis and related results, to determine what further steps are needed to permit the DER to be connected safely and reliably.
- (b) The Applicant shall notify the EDC in writing that it requests an Applicant Options Meeting or that it would like to proceed to Detailed Study within fifteen (15) Business Days of the EDC's notification of screen results, or the Application shall be deemed withdrawn. If the Applicant requests an Applicant Options Meeting, the EDC shall offer to convene a meeting at a mutually agreeable time within fifteen (15) Business Days of the Applicant's request.
- (c) After the Applicant Options Meeting, the Applicant may choose to either amend the Application or proceed with study under Detailed Study, following the procedures set forth here:
 - (1) If the Applicant chooses to amend the Application to address the specific failed screens, the Applicant must submit an updated Application demonstrating the redesign within ten (10) Business Days after the Applicant Options Meeting. The redesign shall include only changes to address the screen failures or identified modifications (which could include, for example, the addition of DC- or AC-coupled energy storage). Increases in Export Capacity or changes to the Point of Interconnection are not permitted and shall require the Application to be withdrawn and resubmitted. The EDC will evaluate whether the redesign addresses the screen failure and notify the Applicant of the results of this evaluation within ten (10) Business Days of receiving the updated Application. This redesign option to mitigate impacts shall only be available one time during the process.
 - (2) If the Applicant does not amend or withdraw its Interconnection Application within ten (10) Business Days of receiving results, it shall continue to be evaluated under Detailed Study.

- (a) Application: An Applicant must submit a Detailed Study Application using the standard form provided in Attachment D, which may be sent electronically to the EDC. An Applicant whose Simplified Process or Fast Track Application was denied may request that the EDC treat that existing Application already in the EDC's possession as a new Detailed Study Application. Within five (5) Business Days of receipt of the Application or the Applicant's request to use the existing Application, the EDC shall acknowledge receipt of the Application or transfer of an existing Application to the Detailed Study and notify the Applicant whether or not the Application is complete. If the Application is incomplete, the EDC shall provide a written list detailing all information that the Applicant must provide to complete the Application. The Applicant will have twenty (20) Business Days after receipt of the list to submit the listed information. Otherwise, the Application will be deemed withdrawn. The EDC shall notify the Applicant within three (3) Business Days of receipt of the revised Application whether the revised Application is complete or incomplete. The EDC may deem the Application withdrawn if it remains incomplete.
- (b) Duration: The detailed study process shall take no longer than 120 calendar days from the date of a completed application.
- (c) Scoping Meeting: The EDC will conduct an initial review that includes a scoping meeting with the Applicant within ten (10) Business Days of determining that an Application is complete. 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 is to discuss the Application, the Reference Point of Applicability, and review existing studies relevant to the Application. At the scoping meeting, the EDC shall provide pertinent information such as: the available Fault Current at the proposed location, the existing peak loading on the lines in the general vicinity of the proposed DER, and the configuration of the distribution line at the proposed Point of Interconnection. The EDC and the Applicant will bring to the meeting personnel, including system engineers, and other resources as may be reasonably required to accomplish the purpose of the meeting. By mutual agreement of the Parties, the scoping meeting, System Impact Study, or Facilities Study may be waived.
- (d) System Impact Study:
 - (1) If the Parties do not waive the System Impact Study, within five (5) Business Days of the completion of the scoping meeting (or five (5) Business Days after completion of the Application or the final step in the Simplified Process or Fast Track if scoping meeting is waived), the EDC shall provide the Applicant with an Interconnection System Impact Study Agreement in Attachment F, including a detailed cost estimate and time to undertake the System Impact Study. The Applicant must return the signed System Impact Study Agreement within twenty (20) Business Days, or the Application shall be deemed withdrawn.
 - (2) A System Impact Study for a DER shall include a review of the DER's adherence to IEEE Standard 1547. For DER components that are Certified, the EDC may not charge the Applicant for review of those components in

isolation.

- (3) The EDC shall include in its compliance tariff, filed within 60 days of the promulgation of these regulations, a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section, including the following, at a minimum:
 - (A) Load-Flow Study;
 - (B) Short-Circuit Study;
 - (C) Circuit Protection and Coordination Study;
 - (D) Impact on System Operation;
 - (E) Stability Study (and the conditions that would justify including this element in the System Impact Study);
 - (F) Voltage-Collapse Study (and the conditions that would justify including this element in the System Impact Study).
 - (4) The System Impact Study shall take into account the proposed DER's design and operating characteristics and study the DER according to how the DER is proposed to be operated. If the DER limits export pursuant to Section 4007.2, the System Impact Study shall use Export Capacity instead of Nameplate Rating, except when assessing Fault Current contribution. To assess Fault Current contribution, the System Impact Study shall use the rated Fault Current; for example, the Applicant may provide manufacturer test data (pursuant to the Fault Current test described in IEEE Standard 1547.1-2020 clause 5.18) showing that the Fault Current is independent of the Nameplate Rating.
 - (5) Once an Applicant delivers to the EDC an executed System Impact Study Agreement and payment in accordance with that agreement, the EDC shall conduct the System Impact Study. The System Impact Study shall be completed within forty (40) Business Days of the Applicant's delivery of the executed System Impact Study Agreement.¹⁴ The System Impact Study results provided to the Applicant shall include a description of the EDC's analysis, conclusions, and the reasoning supporting those conclusions.
- (e) Facilities Study:
- (1) If the EDC determines that EDS modifications required to accommodate the proposed interconnection are not substantial, the System Impact Study will identify the scope and cost of the modifications defined in the System Impact Study results, and no Facilities Study shall be required.
 - (2) If the EDC determines that necessary modifications to the EDC's EDS are

¹⁴ If a proposed Application is found to require evaluation by PJM, and there is an adjustment to the timelines to allow PJM's evaluation, the Applicant shall be notified and the timeline updated.

substantial, the results of the System Impact Study will include cost estimate for the Facilities Study and cost estimate for the EDS modifications. The EDC shall provide a technical explanation demonstrating the need for the identified EDS Modifications, including a demonstration that required functionalities are not satisfied by employing IEEE STD 1547 certified and UL 1741 SA listed equipment. The detailed costs of any EDS modifications necessary to interconnect the Applicant's proposed DER will be identified in a Facilities Study to be completed by the EDC.

- (3) If the Parties do not waive the Facilities Study, within five (5) Business Days of the completion of the System Impact Study, the EDC shall provide an Interconnection Facilities Study Agreement provided in Attachment F, including an itemized cost estimate and timeline to undertake the Facilities Study.
- (4) Once the Applicant executes the Facilities Study Agreement and pays the EDC pursuant to the terms of that agreement, the EDC shall conduct the Facilities Study. The Facilities Study shall include a detailed list of necessary EDS modifications and an itemized cost estimate, breaking out individual pieces of equipment, labor, and other costs, including overheads, for construction. The Applicant is not responsible for costs which exceed the estimate by more than fifteen percent (15%) if actual construction is completed. The Facilities Study shall also indicate the milestones for completion of the Applicant's installation of its DER and the EDC's completion of any EDS modifications, and the milestones from the Facilities Study (if any) shall be incorporated into the Interconnection Agreement. The Facilities Study shall be completed within forty-five (45) Business Days of the Applicant's delivery of the executed Facilities Study Agreement.

(f) Interconnection Agreement:

- (1) Within five (5) Business Days of completion of the last study, the EDC shall execute and send the Applicant an Interconnection Agreement using the standard form agreement provided in Attachment E of the SGIR, which shall incorporate the milestones (if any) from the Facilities Study.
 - (A) The EDC shall provide a cost estimate, subject to the cost limit set by the Facilities Study cost estimate, and construction schedule along with the Interconnection Agreement. The cost estimate and construction schedule shall include: the additional hosting capacity enabled by the EDS Modifications, a construction schedule for Interconnection Facilities and/or EDS Modifications, and an itemization of estimated costs for the pro-rata share of the EDS Modifications required for the Applicant's DER to interconnect that, at a minimum, includes a breakdown of labor and capital expenditures for each job activity and proposed piece of equipment. An Applicant shall be assigned a pro-rata share of for proportional use (based on export capacity) of the EDS upgrades in accordance with Section 4007.7.

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- (2) EDS Modification costs for CREFs shall be allocated as follows, subject to funding availability:
- (A) The total EDS Modification costs for shared allocation for CREFs shall be capped at \$500,000 per calendar year or as otherwise determined by the Commission.
 - (B) If funding is available, EDS Modification cost responsibility shall be assigned as follows:
 - iv. For EDS Modification costs of \$50,000 or less, fifty percent (50%) of the costs shall be paid for by the CREF Interconnection Customer and fifty percent (50%) of the costs paid for by the EDC.
 - v. For EDS Modification costs of over \$50,000, the portion paid by the EDC shall be capped at \$25,000. The CREF Interconnection Customer shall pay the balance of the EDS Modification costs after the EDC portion has been subtracted.
- (3) Within forty (40) Business Days of the receipt of an Interconnection Agreement, the Interconnection Customer shall execute and return the Interconnection Agreement and notify the EDC of the anticipated start date of the DER. Unless the EDC agrees to a later date or requires more time for necessary modifications to its EDS, the Interconnection Customer shall identify an anticipated start date that is within twenty-four (24) months of the Interconnection Customer's execution of the Interconnection Agreement. However, the Parties may mutually agree to an extension of this time if needed, which shall not be unreasonably withheld. The Interconnection Customer shall notify the EDC if there is any change in the anticipated start date of interconnected operations of the DER.
- (g) Inspection: The EDC shall inspect the completed DER installation for compliance with requirements and shall attend any required commissioning tests pursuant to IEEE Standard 1547-2018. The EDC shall conduct the inspection within ten (10) Business Days of receiving the notice of the anticipated start date at a time mutually agreeable to the Parties. If the DER passes the inspection, the EDC shall provide written notice of the passage within three (3) Business Days. If a DER initially fails an EDC inspection, the EDC shall offer to redo the inspection at the Interconnection Customer's expense at a time mutually agreeable to the Parties. If the EDC determines that the DER fails the inspection, it must provide a written explanation detailing the reasons and any standards violated. Provided that any required commissioning tests are satisfactory, the EDC shall notify the Interconnection Customer in writing within five (5) Business Days of completion of the inspection that operation of the DER is approved.
- (1) If the DER is a CREF, the EDC shall complete the inspection of the interval production meter in accordance with Section 907.4 prior to the

Interconnection Customer's anticipated start date.

- (h) Meter Change: If operation of the DER requires a meter change, the EDC shall complete the meter change prior to the Interconnection Customer's anticipated start date.
- (m) Operation: An Interconnection Customer may begin interconnected operation of a DER provided that there is an Interconnection Agreement in effect; the EDC has received proof of the electric code official's approval; and the DER has received written notice that it passed any inspection required by the EDC, or the inspection has been waived.
- (i) Final Interconnection Costs
 - (1) The EDC shall provide the following information to the Interconnection Customer regarding the Interconnection Facilities or EDS Modification costs:
 - (A) The invoice containing the actual unit costs of the Interconnection Facilities and EDS Modifications, and the pro-rata share of those costs owed by the Interconnection Customer based on export capacity, shall be sent to the Interconnection Customer within fifteen (15) business days of the completion of the Interconnection Facilities and/or EDS Modifications. The invoice to the Interconnection Customer shall include an itemization of costs that, at a minimum, includes the exact breakdown of labor and capital expenditures for each job activity and installed piece of equipment. The invoice shall be sufficiently detailed such that the Interconnection Customer and the Commission can understand the exact breakdown of the itemized costs for each job activity and installed piece of equipment.
 - (B) If the total actual costs for the project are more than fifteen percent (15%) above the initial cost estimate, the EDC shall send the Interconnection Customer an interconnection cost variance report on the cost variance between the initial cost estimate and the actual costs incurred within twenty (20) business days after the completion of the Interconnection Facilities and/or EDS Modifications. The Interconnection Cost Variance Report shall include an itemization of costs, variances and an explanation for each variance that, at a minimum, includes the exact breakdown of labor and capital expenditures for each job activity and installed piece of equipment. The Interconnection Cost Variance Report shall be sufficiently detailed such that the Interconnection Customer and the Commission can understand the exact breakdown of the itemized costs for each job activity and installed piece of equipment. The Interconnection Cost Variance Report shall be prepared at the EDC's expense.
 - (2) The Interconnection Customer shall be responsible for the actual costs of

Interconnection Facilities and/or EDS Modifications up to fifteen percent (15%) above the cost estimate governed by Section 4006.5(e)(4).

- (3) The EDC may track cost overruns that are fifteen percent (15%) above the initial cost estimate and request recovery of the account balance subject to the review of the Interconnection Task Force and approval of the Commission. Net cost overruns shall be tracked in a regulatory asset account. The EDC may be able to recover from ratepayers the net cost overruns if the Commission determines that such costs were prudently incurred. Net cost overruns deemed imprudently incurred shall not be recovered from District ratepayers.

4007 GENERAL PROVISIONS AND REQUIREMENTS

4007.1 IEEE Standard 1547-2018 Adoption

- (a) DERs shall be required to comply with IEEE Standard 1547-2018, and shall conform with the following minimum requirements:
 - (2) Abnormal operating performance category: Inverter-based DERs shall meet Category III capabilities and rotating DERs shall meet Category I capabilities.
 - (3) Normal operating performance category: Inverter-based DERs shall meet Category B capabilities and rotating DERs shall meet Category A capabilities.

Inverter-based interconnection equipment may be Certified to UL 1741 Third Edition, Supplement SB in order to demonstrate compliance with IEEE Standard 1541-2018. Equipment that is not Certified to Supplement SB may require additional evaluation and commissioning testing to confirm compliance with IEEE Standard 1547- 2018.

- (b) The above assignment of categories is expected to cover the vast majority of interconnections. Any instances that do not fall within the above assignment shall be:
 - (1) Reviewed on a case-by-case basis, with the EDC making the determination for requiring the specific category; or
 - (2) Specified in the Commission's TIIR.

The EDC should consider Annex B of IEEE Standard 1547-2018 when making these determinations.

- (c) The TIIR includes the Commission's recommended settings. If the EDC is to deviate from the settings on a case-by-case basis in accordance with 4007.1(b)(1), it shall provide the Applicant with a technical justification, including how Annex B of IEEE Standard 1547-2018 was considered.

- (a) If a DER uses any configuration or operating mode in Section 4007.2(c) to limit the export of electrical power across the Point of Common Coupling, then the Export Capacity shall be only the amount capable of being exported (not including any Inadvertent Export). To prevent impacts on system safety and reliability, any Inadvertent Export from a DER must comply with the limits identified in this Section. The Export Capacity specified by the Interconnection Customer in the Application will subsequently be included as a limitation in the Interconnection Agreement.
- (b) An Application proposing to use a configuration or operating mode to limit the export of electrical power across the Point of Common Coupling shall include proposed control and/or protection settings.
- (c) Acceptable methods of export limitation include:
 - (1) *Export Limitation Methods for Non-Exporting DERs:*
 - vi. Reverse Power Protection (Device 32R): To limit export of power across the Point of Common Coupling, a reverse power Protective Function is implemented using a utility-grade protective relay. The default setting for this Protective Function shall be 0.1% (export) of the service transformer's nominal base Nameplate Rating, with a maximum 2.0 second time delay to limit Inadvertent Export.
 - vii. Minimum Power Protection (Device 32F): To limit export of power across the Point of Common Coupling, a minimum import Protective Function is implemented using a utility-grade protective relay. The default setting for this Protective Function shall be 5% (import) of the DER's total Nameplate Rating, with a maximum 2.0 second time delay to limit Inadvertent Export.
 - viii. Relative Distributed Energy Resource Rating: This option requires the DER's Nameplate Rating to be so small in comparison to its host facility's minimum load that the use of additional Protective Functions is not required to ensure that power will not be exported to the EDS. This option requires the DER's Nameplate Rating to be no greater than 50% of the Interconnection Customer's verifiable minimum Host Load over the past 12 months. This option is not available for interconnections to Area Networks or Spot Networks.
 - (2) *Export Limitation Methods for Limited-Export DERs:*
 - (A) Directional Power Protection (Device 32): To limit export of power across the Point of Common Coupling, a directional power Protective Function is implemented using a utility-grade protective

relay. The default setting for this Protective Function shall be the Export Capacity value, with a maximum 2.0 second time delay to limit Inadvertent Export.

- (B) Configured Power Rating: A reduced output rating utilizing the Power Rating Configuration Setting may be used to ensure the DER does not generate power beyond a certain value lower than the Nameplate Rating. The configuration setting corresponds to the active or apparent power ratings in Table 28 of IEEE Standard 1547-2018, as described in subclause 10.4. A local DER communication interface is not required to utilize the configuration setting as long as it can be set by other Certified means. The reduced power rating may be indicated by means of a Nameplate Rating replacement, or a supplemental adhesive de-rating tag to indicate the reduced power rating. This method must be Certified to IEEE Standard 1547.1-2020. Use of a configured power rating not applied to individual generator(s) shall require evaluation under mutually agreed upon means.
- (3) *Export Limitation Methods for Non-Exporting DERs or Limited-Export DERs*:
 - (A) Certified Power Control Systems: A DER may use Certified Power Control Systems to limit export. A DER utilizing this option must use a Power Control System and an inverter Certified per UL 1741 by a Nationally Recognized Testing Laboratory (NRTL) with a maximum open loop response time of no more than 30 seconds to limit Inadvertent Export.¹⁵ This option is not available for interconnections to Area Networks or Spot Networks.
 - (B) Agreed-Upon Means: A DER may be designed with other control systems and/or Protective Functions to limit export and Inadvertent Export if mutual agreement is reached with the EDC. The limits may be based on technical limitations of the Interconnection Customer's equipment or the EDS equipment. To ensure Inadvertent Export remains within mutually agreed-upon limits, the Interconnection Customer may use an uncertified Power Control System, an internal transfer relay, energy management system, or other customer facility hardware or software if approved by the EDC.

4007.3 Meter Collar Adapters

With respect to meter collar adapters, the following provisions apply:

- (a) An EDC shall approve a meter collar adapter model for installation for specific compatible meter configurations and customer applications, provided that the meter collar adapter model meets the following criteria:

¹⁵ NRTL testing to the UL Power Control System Certification Requirement Decision shall be accepted until similar test procedures for power control systems are incorporated into the standard.

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- (1) The meter collar adapter model is approved or listed by a nationally recognized testing laboratory;
 - (2) The meter collar adapter model is approved for use by an EDC, unless sufficient rationale for disapproval is provided by an EDC in accordance with Section 4007.3(b)(2) of these rules;
 - (3) All meter collar model installations, access, testing, inspections, servicing and removals shall only be performed by a qualified person as agreed between the EDC and the meter collar manufacturer;
 - (4) The meter collar adapter model design does not impede access to the sealed meter socket compartment, or to the meter itself by a qualified person;
 - (5) The meter collar adapter model is compatible with the National Electric Code;
 - (6) The meter collar adapter model is compatible to the specific meter configurations and customer applications to ensure that the meter collar adapter is capable of being safely and reliably inserted into a meter socket to maintain a secure connection with both the meter socket and the EDC meter.
- (b) An EDC shall approve or disapprove a meter collar adapter model for installation in its service area no later than 90 days after a meter collar manufacturer submits a request for approval of the meter collar adapter and an EDC's procedures shall be updated within ninety (90) days of approval.
- (1) A meter collar manufacturer that submits a request to an EDC for approval shall file the request with the Commission in Formal Case No. 1050, and shall be served on the Office of the People's Counsel of the District of Columbia and other parties in accordance with 15 DCMR § 115.2.
 - (2) An EDC shall provide an explanation to the requesting meter collar manufacturer explaining the reasons any meter collar adapter model application was denied. Such explanation shall be filed with the Commission in Formal Case No. 1050, and shall be served on the Office of the People's Counsel of the District of Columbia and other parties in accordance with 15 DCMR § 115.2.
 - (3) An EDC shall provide public notice of all decisions approving a meter collar adapter model by posting the information on the EDC's website and providing an update to the Commission in Formal Case No. 1050, and shall be served on the Office of the People's Counsel of the District of Columbia and other parties in accordance with 15 DCMR § 115.2.
- (c) An EDC shall authorize the installation and operation of an EDC-approved meter collar adapter for a customer installation, provided the meter collar adapter meets the following criteria:

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- (1) The meter collar adapter is qualified to be connected to the supply side of the service disconnect pursuant to the applicable provisions of the National Electric Code;
 - (2) The meter collar adapter is rated for the meter socket into which it is intended to be installed;
 - (3) The meter collar adapter does not exceed the weight bearing limits of a meter socket;
 - (4) Only one meter collar adapter is installed per individual meter socket position.
 - (5) The meter collar adapter does not disable the excessive heating detection capability of AMI meters.
- (d) An EDC shall uninstall an approved meter collar adapter in the aggregate if any deficiencies are found after installation that result in safety or operational concerns, if these concerns cannot be remediated by a customer for a specific installation or by a meter collar adapter manufacturer, in the aggregate. An EDC shall notify the Commission of plans to undertake such an action with an appropriate filing in Formal Case No. 1050, and shall be served on the Office of the People's Counsel of the District of Columbia and other parties in accordance with 15 DCMR § 115.2.

4007.4

Timelines and Extensions

- (a) The EDC is expected to meet all deadlines set by this chapter. If, for any reason, the EDC misses a deadline, the EDC shall notify the Applicant/Interconnection Customer in writing within one (1) Business Day after the missed deadline. The notification shall explain the reason for the EDC's failure to meet the deadline and provide an estimate of when the step will be completed, which shall be for up to one-half of the time originally allotted (e.g., a ten (10) Business Day extension for a twenty (20) Business Day timeframe). The EDC shall keep the Applicant/Interconnection Customer updated at least weekly of progress toward completion and any expected change in the completion date.
- (b) The Applicant may, if needed, request in writing the extension of deadlines set by the SGIR. The requested extension may be for up to one-half of the time originally allotted (e.g., a ten (10) Business Day extension for a twenty (20) Business Day timeframe). The EDC shall not unreasonably refuse this request. If the EDC has missed a deadline for an Application, the Applicant's project may not be removed from the queue for a missed deadline on the Applicant's side.

4007.5

Online Applications and Electronic Signatures

- (e) The EDC shall allow Interconnection Applications to be submitted via email or through the EDC's website.
- (f) The EDC shall dedicate an easy-to-locate page on their website to interconnection procedures. The relevant website page shall include:

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- (1) The SGIR and attachments in an electronically searchable format.
 - (2) The Interconnection Application forms in a format that allows for electronic entry of data.
 - (3) The Interconnection Agreements.
 - (4) The EDC's point of contact for submission of Interconnection Applications including email address and phone number.
- (g) The EDC shall allow electronic signatures to be used for Interconnection Applications and Agreements.

4007.7 EDS Upgrade Cost Allocation

- (a) In the event of required EDS upgrades, an Applicant shall be assigned a pro-rata share of for proportional use of the upgraded infrastructure (based on export capacity). Subsequent Applicants benefiting from the upgrade shall also pay a pro-rata share if the application is received within three (3) years of the EDS upgrade.
- (b) If the full upgrade costs are not recovered from Interconnection Customers during the cost sharing window, an EDC may request cost recovery for the upgrade. The EDC shall develop a report including DER forecasts for the affected circuit(s) and the actual final costs of the EDS Upgrade(s) to the Interconnection Task Force for review. The Interconnection Task Force shall provide a report with recommendations to the Commission regarding approval of cost recovery of the EDS Upgrade(s) in question.

4007.8 Miscellaneous Requirements

- (a) The Applicant is responsible for construction of the DER and obtaining any necessary local code official approvals (electrical, zoning, etc.).
- (b) The Applicant shall conduct the commissioning test pursuant to the IEEE Standard 1547-2018 and comply with all manufacturer requirements.
- (c) To assist Applicants in the interconnection process, the EDC shall designate an employee or office from which basic information on interconnections can be obtained. Upon request, the EDC shall provide interested Applicants with all relevant forms, documents, and technical requirements for filing a complete Application. Upon an Applicant's request, the EDC shall meet with an Applicant at the EDC's offices, by telephone, or via video meeting prior to submission for up to one hour for Simplified Process Applicants and two hours for other Applicants.
- (d) The authorized hourly rate for engineering review under Supplemental Review or Detailed Study shall be \$100 per hour.
- (e) The EDC shall not require an Applicant to install additional controls (other than a EDC-accessible disconnect switch for non-inverter-based DERs), or to perform or pay for additional tests not identified herein to obtain approval to interconnect.

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- (f) Upon the petition of an EDC, for good cause shown, the Commission may require a customer with a generating facility with a rated capacity of 250 kW or greater to obtain general liability insurance prior to connecting with an EDC. If approved by the Commission, an EDC may require that an Applicant proposing to connect a generating facility with a rated capacity greater than 250 kW provide proof of insurance with reasonable limits not to exceed \$1,000,000.00 or other reasonable evidence of financial responsibility.
- (g) Metering and Monitoring shall be as set forth in the EDC's tariff for sale or exchange of energy, capacity, or other ancillary services. 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. If the DER is a CREF, an EDC is responsible for determining that the revenue quality interval meter has been properly installed, in accordance with industry standards, and for reading the meter, in accordance with Section 907.4.
- (h) Telemetry may be required by the EDC for DERs with a Nameplate Rating of 1 MVA or higher. Details on equipment requirements can be found in the Commission's TIIR in Attachment G.
- (i) Once an interconnection has been approved under these procedures, the EDC shall not require an Interconnection Customer to test its DER except that the EDC may require any manufacturer-recommended testing and:
- (1) For Fast Track, the EDC may require periodic testing to verify adherence to the interconnection requirements. The frequency of periodic testing will be specified in the Commission's forthcoming TIIR.
 - (2) For Detailed Study, all interconnection-related Protective Functions and associated batteries shall be periodically tested at intervals specified by the manufacturer, system integrator, or authority having jurisdiction over the interconnection. Periodic test reports or a log for inspection shall be maintained.
 - (3) For functional software or firmware changes, hardware changes, protection settings, or function changes, or changes to operating modes, the EDC may require retesting to ensure the DER still meets the requirements of IEEE Standard 1547-2018. When required, the updated DER configuration and testing results shall be documented and submitted to the EDC.
- (j) The EDC shall have the right to inspect an Interconnection Customer's DER before and after interconnection approval is granted, at reasonable hours and with reasonable prior notice provided to the Interconnection Customer. If the EDC discovers an Interconnection Customer's DER is not in compliance with the operating requirements of the Interconnection Agreement or applicable standards, and the non-compliance adversely affects the safety or reliability of the electric system, the EDC may require disconnection of the Interconnection Customer's DER until the DER complies with the operating requirements of the Interconnection Agreement or applicable standards.

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- (k) The Interconnection Customer may disconnect the DER at any time without notice to the EDC and may terminate the Interconnection Agreement at any time with one (1) day's notice to the EDC.
 - (l) On the Application form, an Applicant may designate a representative to process an Application on Applicant's behalf, and an Interconnection Customer may designate a representative to meet some or all the Interconnection Customer's responsibilities under the Interconnection Agreement.
 - (m) If the Applicant is seeking approval for an Energy Storage Device, a separate application for the interconnection of new or modified load will not be required as a result of a customer's application for interconnection under the SGIR and instead the review shall occur under the SGIR.

4008 DISPUTE RESOLUTION

4008.1 Interconnection disputes shall be governed as follows:

- (a) The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and Agreements according to the provisions of this Section.
- (b) In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the Procedures under this Section. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement, or in the Application if there is no Interconnection Agreement. A copy of the notice shall also be sent to the Interconnection Ombudsperson.
- (c) The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- (d) If the dispute is principally related to one or both Parties' compliance with deadlines specified in the SGIR or associated agreements, the Parties shall seek assistance from the Interconnection Ombudsperson if the Parties cannot mutually resolve the dispute within eight (8) Business Days.
- (e) If the dispute is not principally related to one or both Parties' compliance with a deadline, then the non-disputing Party shall provide the disputing Party with all relevant regulatory and/or technical details and analysis regarding the EDC interconnection requirements under dispute within ten (10) Business Days of the date of the notice of dispute. Within twenty (20) Business Days of the date of the notice of dispute, the Parties' authorized representatives shall meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- (f) If a resolution is not reached in thirty (20) Business Days from the date of the notice

of dispute, either (1) a Party may request to continue negotiations for an additional twenty (10) Business Days, or (2) the Parties may by mutual agreement make a written request for mediation to the Interconnection Ombudsperson.

- (g) If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's formal complaint process.
- (h) At any time, either Party may file a complaint before the Commission pursuant to its rules.
- (i) If neither Party elects to seek assistance from the Commission, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Chapter.

4008.2 Within thirty (30) days of the date of this Order, the Commission shall designate the Interconnection Ombudsperson(s).

4009 EDC REPORTING AND RECORDS REQUIREMENTS

4009.1 The EDC shall submit to the Commission and make available to the public on its website Small Generator Interconnection Annual Reports and Small Generator Interconnection Quarterly Reports containing the following information. The Small Generator Interconnection Annual Report shall be submitted within 60 days of the close of the calendar year. Quarterly reports shall be submitted within 15 days of the close of the quarter.

- (a) Pre-Application Reports
 - (1) Total number of reports requested
 - (2) Total number of reports in process
 - (3) Total number of reports issued
 - (4) Total number of requests withdrawn
 - (5) Maximum, mean, and median processing times from receipt of request to issuance of report
 - (6) Number of reports processed in more than the ten (10) Business Days allowed in Section 4005.2(a)
- (b) Interconnection Applications
 - (1) Total number received, broken down by:
 - (i) Primary fuel type (e.g., solar, wind, bio-gas, etc.)
 - (ii) Interconnection Level (Level A, B, C)
 - (iii) Nameplate Rating in increments of 25 kW (<25 kW, <50 kW, etc)
 - (iv) NEM, CREF
 - (2) Simplified Process Review (Level A)
 - (i) Total number of applications processed

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- (ii) Number of applications denied
 - (iii) Number of applications withdrawn
 - (iv) Number of applications moved to Fast Track (Level B)
 - (v) Maximum, mean, and median processing times from receipt of complete Application to provision of counter-signed Interconnection Agreement
 - (vi) Maximum, mean, and median processing times from receipt of complete Application to system operation
- (3) Fast Track Review (Level B)
- (i) Total number of applications that passed the screens in Section 4006.2(c)
 - (ii) Total number of applications that failed the screens in Section 4006.2(c)
 - (iii) Number of applications denied
 - (iv) Number of applications withdrawn
 - (v) Number of applications moved to Supplemental Review (Level C)
 - (vi) Maximum, mean, and median processing times from receipt of complete Application to issuance of Interconnection Agreement
 - (vii) Maximum, mean, and median processing times from receipt of complete Application to system operation
 - (viii) Number of DER requiring Interconnection Facilities
 - (ix) Number of DER requiring EDS Modifications
- (4) Supplemental Review
- (i) Total number of applications that passed the screens in Section 4006.3(c)
 - (ii) Total number of applications that failed the screens in Section 4006.3(c)
 - (iii) Maximum, mean, and median processing times from receipt of complete Application to issuance of Interconnection Agreement
- (5) Detailed Study Review (Level C)
- (i) System Impact Studies
 - 1. Total number of System Impact Studies completed under Section 4006.5(d)
 - 2. Maximum, mean, and median processing times from receipt of signed Interconnection System Impact Study Agreement to provision of study results
 - 3. Maximum, mean, and median System Impact Study costs
 - (ii) Facilities Studies
 - 1. Total number of Facilities Studies completed under Section 4006.5(e)
 - 2. Maximum, mean, and median processing times from receipt of signed Interconnection Facilities Study Agreement to provision of study results
 - 3. Maximum, mean, and median processing times for

projects undergoing the study process from receipt of complete Application to issuance of Interconnection Agreement

4. Maximum, mean and median Facility Study costs

- (iii) Total number of applications
- (iv) Number of applications denied
- (v) Number of applications withdrawn
- (vi) Maximum, mean, and median processing times from receipt of complete Application to system operation
- (vii) Number of DER requiring Interconnection Facilities
- (viii) Number of DER requiring EDS Modifications

(6) EDS Modifications:

- (i) Number of DER requiring EDS Modifications
- (ii) Number of projects where final construction milestone was not reached by time specified in the Interconnection Agreement, and the length of the delay in each case
- (iii) Maximum, mean, and median time for completion for construction from provision of the Interconnection Agreement to completion of the EDS Modifications

(7) Number of Projects that achieved commercial operation, by:

- (i) Primary fuel type (e.g., solar, wind, bio-gas, etc.)
- (ii) Interconnection Level (Level A, B, C)
- (iii) Nameplate Rating in increments of 25 kW (<25 kW, <50 kW, etc)

(8) Interconnection Facility and EDS Modification Costs: Maximum, mean, and median final costs for projects by:

- (i) Primary fuel type (e.g., solar, wind, bio-gas, etc.)
- (ii) Interconnection Level (Level A, B, C)
- (iii) Nameplate Rating in increments of 25 kW (<25 kW, <50 kW, etc)

(9) Deviation Between Estimates and Final Costs for Interconnection Facilities and EDS Modifications:

- (i) Number of projects where the final cost exceeded the cost estimate by more than 5%.
- (ii) Number of projects where the final cost was below the cost estimate provided in the Facilities Study.
- (iii) Maximum, mean and median amount of deviation where costs were above the cost estimate.
- (iv) Maximum, mean and median amount of deviation where costs were below the cost estimate.

(10) Invoices / Cost Variance Reports

- (v) Number of late invoices
 - 1. Number of days the invoices were delayed
 - 2. Explanation for delays
- (vi) Number of late Interconnection Cost Variance Reports
 - 1. Number of days the reports were delayed

2. Explanation for delays

- 4008.2 If, on an annual basis, the average time of the EDC'S compliance with any deadline in this chapter is five (5) or more business days longer than required in these rules, it shall be required to develop a corrective action plan for approval by the Commission. The corrective action plan shall be submitted with the annual report.
- (a) The corrective action plan shall describe the cause(s) of the EDC's non-compliance, 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). To the extent automation is an element of the corrective measure(s), this should be described in the plan.
 - (b) Progress on current corrective action plans shall be included in the EDC's Small Generator Interconnection Annual Report.
- 4008.3 The EDC shall maintain records of the following for a minimum of three (3) years:
- (a) The total number and the Nameplate Capacity of the Interconnection Requests received, approved, and denied under Level A, B, and C Review;
 - (b) The number of Interconnection Requests that were not processed within the timelines established in this rule;
 - (c) The justifications for the actions taken to deny Interconnection Requests; and
 - (d) 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.
- 4008.4 The EDC shall provide a public and confidential list of final interconnection approvals for renewable generators (name, address, capacity (DC and AC), system time, and NEM/CREF) on the 15th of each month, for the previous month's interconnections.

4010 INTERCONNECTION UNIT COST GUIDE

- 4010.1 Within 90 days of the promulgation of these regulations, an EDC shall provide, in *Formal Case No. 1050*, a draft interconnection unit cost guide for stakeholder input and approval by the Commission. The unit cost guide shall contain itemized costs for typical interconnection facilities and EDS modifications.
- 4010.2 Upon approval, an EDC shall maintain the unit cost guide on its website.
- 4010.3 The EDC or other stakeholder may petition for the unit cost guide to be amended. Any amendments must be approved by the Commission.

4011 TECHNICAL INTERCONNECTION AND INTEROPERABILITY REQUIREMENTS (TIIR)

4011.1 The Commission will adopt a TIIR as Attachment G to these regulations. The TIIR in Attachment G is adopted as an interim TIIR.

4011.2 Within fifteen (15) days of the date of the promulgation of these regulations, the Commission shall release a Notice of Inquiry requesting input on the full development of the Commission's TIIR. The Commission shall release a draft TIIR through the rulemaking process. Upon adoption of the TIIR, the Commission shall amend these regulations. At that time, the Commission's TIIR shall be controlling. An EDC, upon the Commission's adoption of the TIIR, shall be required to follow the Commission's TIIR and shall not maintain an EDC-specific TIIR. If an EDC wishes to deviate from or amend the Commission TIIR, it shall file an application to amend the TIIR.

4012 INTERCONNECTION TASK FORCE, SURVEY, & AUDIT

4012.1 Interconnection Survey

- (a) The Commission shall release a survey in March and September of each calendar year for Applicants and Interconnection Customers to assess the effectiveness of these regulations.

4012.2 Interconnection Task Force

- (a) Within 60 days of the date of the promulgation of these regulations, the Commission shall establish the Interconnection Task Force, to meet once quarterly. The Task Force shall be open to public participation and agenda items shall be suggested by participants, including the interconnection survey results. The Task Force shall provide a report to the Commission at least annually to present recommendations for regulatory amendments or other actions the Commission should take related to improving interconnection of distributed energy resources.

4012.3 Interconnection Audit

- (a) The Commission shall undertake an audit of EDC compliance with this chapter on an annual basis.

4013 WAIVER

4013.1 The Commission may upon request, or on its own initiative after notice to the parties of its intention do so, waive any provision of this chapter for good cause.

4014 – 4097 RESERVED

4098 PENALTIES

4098.1 The penalties in this chapter are for violations of any regulation governing an EDC's management of the interconnection of DER. Penalties shall go into effect six (6) months after the promulgation of these rules to allow sufficient time for an EDC to overhaul its interconnection process. Each violation shall be subject to a civil penalty not to exceed one

hundred thousand dollars (\$100,000) or a greater maximum penalty established by federal laws and regulation at the time of the violation for each violation for each day that the violation persists. The maximum civil penalty shall not exceed one million dollars (\$1,000,000) or a greater maximum penalty established by federal laws and regulations at the time of the violation for any related series of violations.

4098.2 The following are the base amounts to be charged for violations of the Commission's rules by an EDC:

Violation	DCMR	Amount
Failure to maintain hosting capacity map with all required elements	§ 4001.1	\$30,000
Failure to provide sufficiently granular hosting capacity analysis for review and Commission approval within 90 days	§ 4001.2	\$10,000
Failure to submit hosting capacity data validation plan within 60 days of Commission approval of hosting capacity analysis methodology	§ 4001.4	\$10,000
Failure to submit hosting capacity data validation report by June 30 th	§ 4001.4	\$20,000
Failure to notify Applicant that application has been received within two (2) business days	§ 4003.2	\$500
Failure to notify Applicant whether application is complete within five (5) business days	§ 4003.2	\$500
Failure to assign queue position	§ 4003.3	\$500
Failure to update and provide compliant interconnection queue at least monthly	§ 4003.3	\$10,000
Unilateral amendments to an interconnection application	§ 4003.4(a)	\$1,000
Failure to notify an Applicant within ten (10) business days whether a proposed modification constitutes a material modification	§ 4003.4(b)	\$500
Charging application fees not specified in this chapter	§ 4003.8	\$10,000
Failure to provide pre-application report within ten (10) business days	§ 4005.2	\$500
Failure to notify Applicant of Simplified Process (Level A) screen results within seven (7) business days	§ 4006.1(d)	\$500
Failure to provide, in writing, the specific screens that the Application failed, including the technical reason for failure, and information and detail about the specific system threshold or limitation causing the Application to fail the screen (Simplified Process – Level A; Fast Track – Level B)	§ 4006.1(e), § 4006.2(e)	\$2,000
Failure to allow the Applicant to select either to undergo Supplemental Review or to evaluate the application under Detailed Study (Level C).	§ 4006.1(e), § 4006.2(e)	\$2,000
Failure to provide signed Interconnection Agreement at the same time as the screen results for DER requiring no construction (Simplified Process – Level A; Fast Track – Level B)	§ 4006.1(f)(1), § 4006.2(f)(1)	\$1,000
Failure to notify the Applicant at the time of screen results that the Simplified Process (Level A) Application requires construction and is proceeding under Fast Track (Level B).	§ 4006.1(f)(2)	\$1,000
Failure to review the RPA within five (5) business days (Simplified Process – Level A; Fast Track – Level B)	§ 4006.1(g)(1), § 4006.2(g)(2)	\$500
Failure to notify the Applicant of RPA appropriateness at the same time as the screen results (Simplified Process – Level A; Fast Track – Level B)	§ 4006.1(g)(2), § 4006.2(g)(2)	\$500
Failure to complete or waive inspection within ten (10) business days of the notice of anticipated DER start date (all levels)	§ 4006.1(h), § 4006.2(i), § 4006.5(g)	\$1,000

Violation	DCMR	Amount
If inspection is waived, failure to notify Interconnection Customer of inspection waiver within three (3) business days of the notice of anticipated DER start date (all levels)	§ 4006.1(h), § 4006.2(i), § 4006.5(g)	\$1,000
Failure to provide the Interconnection Customer with a written explanation detailing the reasons for inspection failure and any standards violated	§ 4006.1(h), § 4006.2(i), § 4006.5(g)	\$2,000
Failure to inspect CREF production meter before anticipated DER start date	§ 4006.1(i)(1), § 4006.2(i)(1), § 4006.5(g)(1), § 907.4	\$5,000
Failure to complete meter change prior to anticipated start date	§ 4006.1(i), § 4006.2(j), § 4006.5(h)	\$5,000
Failure to notify applicant of Fast Track (Level B) screens results within fifteen (15) business days	§ 4006.2(d)	\$500
Failure to provide compliant cost estimate and construction schedule along with the Interconnection Agreement within fifteen (15) business days after notification of the Fast Track or Supplemental Review results if the proposed interconnection requires only Interconnection Facilities or Minor System Modifications	§ 4006.2(f)(2)	\$5,000
Failure to provide compliant technical explanation for EDS modifications (Fast Track – Level B; Detailed Study – Level C)	§ 4006.2(f)(3), § 4006.5(e)(2)	\$5,000
Failure to provide compliant cost estimate and construction schedule along with the Interconnection Agreement within fifteen (15) business days after notification of the Fast Track (Level B) or Supplemental Review results if the proposed interconnection requires EDS Modifications	§ 4006.2(f)(3)	\$5,000
Failure to provide the hosting capacity enabled by EDS modifications and pro-rata cost estimate (Fast Track – Level B; Detailed Study – Level C)	§ 4006.2(f)(3), § 4006.5(f)(1)(A)	\$5,000
Failure to provide compliant invoice containing the actual unit costs of the Interconnection Facilities and EDS Modifications, and the pro-rata share of those costs owed by the Interconnection Customer based on export capacity, within fifteen (15) business days of the completion of the Interconnection Facilities and/or EDS Modifications (Fast Track – Level B; Detailed Study – Level C)	§ 4006.2(l)(1)(B), § 4006.5(j)(1)(A)	\$5,000
Failure to provide a compliant interconnection cost variance report within twenty (20) business days after the completion of the Interconnection Facilities and/or EDS Modifications, if the cost variance is 15% or greater	§ 4006.2(l)(1)(B), § 4006.5(j)(1)(B)	\$5,000
Failure to perform Supplemental Review screens and notify Applicant of the results, including a compliant written report, within twenty (20) business days	§ 4006.3(b)	\$500
Failure to provide Applicant with the option for an Applicant Options Meeting if the EDC determines the DER must proceed through Detailed Study (Level C)	§ 4006.4(a)	\$2,000
Failure to convene Applicant Options Meeting within fifteen (15) business days of Applicant's request	§ 4006.4(b)	\$500
Failure to complete Detailed Study (Level C) review within 120 calendar days from the date of completed Application	§ 4006.5(b)	\$1,000
Failure to complete scoping meeting within ten (10) business days	§ 4006.5(c)	\$500

Violation	DCMR	Amount
Failure to provide the Applicant with an Interconnection System Impact Study Agreement within five (5) business days	§ 4006.5(d)(1)	\$500
Charging Applicant for review of DER components that are certified to IEEE Standard 1547-2018 in isolation	§ 4006.5(d)(2)	\$2,000
Failure to conduct the System Impact Study as specified	§ 4006.5(d)(3-4)	\$5,000
Failure to provide the System Impact Study results within forty (40) business days of the Applicant's delivery of the executed System Impact Study Agreement	§ 4006.5(d)(5)	\$1,000
Failure to provide Interconnection Facilities Agreement, itemized cost estimate, and timeline to undertake the Facilities Study within five (5) business days of the completion of the System Impact Study	§ 4006.5(e)(3)	\$1,000
Failure to undertake the Facilities Study as specified	§ 4006.5(e)(4)	\$5,000
Failure to complete the Facilities Study within forty-five (45) business days of the Applicant's delivery of the executed Facilities Study Agreement	§ 4006.5(e)(4)	\$1,000
Failure to provide the Interconnection Agreement within five (5) business days of the last study under Detailed Study (Level C)	§ 4006.5(f)	\$1,000
Failure to provide compliant cost estimate and construction schedule along with the Interconnection Agreement for Detailed Study (Level C)	§ 4006.5(f)(1)(A)	\$5,000
Failure to provide Applicant with a compliant technical justification if the EDC deviates from the Commission's recommended IEEE 1547-2018 settings	§ 4007.1(c)	\$5,000
Failure to approve or disapprove a meter collar adapter model for installation within 90 days after a meter collar manufacturer submits a request for approval of the meter collar adapter	§ 4007.3(b)	\$10,000
Failure to update the EDC's procedures within ninety (90) days of meter collar adapter model approval	§ 4007.3(b)	\$10,000
Failure to provide an explanation to the requesting meter collar manufacturer explaining the reasons any meter collar adapter model application was denied	§ 4007.3(b)(2)	\$10,000
Charging more than the authorized hourly rate for engineering review	§ 4007.7(d)	\$20,000
Requiring an Applicant to install additional controls (other than an EDC-accessible disconnect switch for non-inverter-based DERs), or to perform or pay for additional tests not identified in these rules to obtain approval to interconnect	§ 4007.7(e)	\$20,000
Requiring insurance without Commission approval	§ 4007.7(f)	\$20,000
Requiring telemetry for DER less than 1 MVA	§ 4007.7(h)	\$20,000
Failure to adhere to dispute resolution process	§ 4008	\$30,000
Failure to submit compliant Small Generator Interconnection Annual Report within 60 days of the close of the calendar year	§ 4009.1	\$30,000
Failure to submit compliant Small Generator Interconnection Quarterly Report within 15 days of the close of the quarter	§ 4009.1	\$25,000
Failure to submit corrective action plan with Annual Report, if applicable	§ 4009.2	\$30,000
Failure to maintain records as required	§ 4009.3	\$5,000
Failure to provide monthly final list of interconnection approvals	§ 4009.4	\$10,000
Failure to provide draft interconnection unit cost guide	§ 4010.1	\$30,000

4098.3 The Commission shall consider the following factors in determining the amount of any civil penalty:

Adjustment Criteria	Effect
Appropriateness of the penalty to the size of the business of the person charged	100% Increase or 50% Decrease
Gravity of the violation (including environmental considerations)	200% Increase
Good faith of the person charged in attempting to achieve compliance	25% Decrease

4098.4 The Commission may consider the following downward adjustment criteria in determining the amount of any civil penalty:

Downward Adjustment Criteria	Effect
Minor Violation	50% Decrease
Voluntary Disclosure	50% Decrease
History of Overall Compliance	50% Decrease
Inability to Pay	25% Decrease

4098.5 The Commission may consider the following upward adjustment criteria in determining the amount of any civil penalty:

Upward Adjustment Criteria	Effect
Misrepresentation or Lack of Candor	100% Increase
Ability to Pay/Relative Disincentive	100% Increase
Intentional Violation	300% Increase
Substantial Threat to Public Safety	500% Increase
Prior Violation of Commission Requirements	100% Increase
Economic Benefit	100% Increase
Repeated or Continuous Violation	200% Increase
Inadequate Supervision	300% Increase

4099 DEFINITIONS

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

“**Anti-Islanding**” means a control scheme installed as part of the DER or Interconnection Facility that senses and prevents the formation of an Unintended Island.

“**Applicant**” means a person or entity that has filed an Application to interconnect a DER to the EDS. For a DER that will offset part or all of the load of an EDC customer, the Applicant is that customer, regardless of whether the customer owns the DER or a third party owns the DER.¹⁶ For a DER selling electric power to the EDC, the owner of the DER is the Applicant.

“**Applicant Options Meeting**” has the meaning provided in Section 4006.4.

¹⁶ For a variety of reasons, a DER may be owned by a third party that contracts to sell energy or furnish the DER to the EDC’s customer. In those cases, the EDC’s customer is still the Applicant under this Agreement, though the Applicant may choose to designate the owner as the Applicant’s representative. Customers may also designate on the Application form installers or others to act on their behalf in the process.

“Application” means the Applicant’s request, in accordance with this chapter, to interconnect a new DER, or to make a Material Modification to the operating characteristics of an existing DER that is interconnected with the EDS.

“Area Network” means a section of the EDS served by multiple transformers interconnected in an electrical network circuit generally used in large, densely populated metropolitan areas in order to provide high reliability of service and having the same definition as the term “secondary grid network” as defined in IEEE Standard 1547™.

“Auxiliary Load” means electrical power consumed by any auxiliary equipment necessary to operate the DER.

“Business Day” means Monday through Friday, excluding federal and District holidays.

“Certified” means a piece of equipment has been tested in accordance with the applicable requirements of IEEE Standard 1547™ and IEEE Standard 1547.1™ by any Nationally Recognized Testing Laboratory (“NRTL”) recognized by the United States Occupational Safety and Health Administration to test and certify equipment pursuant to the applicable standard and the equipment has been labeled and is publicly listed by such NRTL at the time of the Interconnection Application. Compliance with UL 1741 Supplement SB ensures compliance with IEEE Standard 1547-2018 and IEEE Standard 1547.1-2020. There may be additional or separate certifications available for specific pieces of equipment.

“Inspection Certificate” – means a signed Department of Buildings inspection form.

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

“Commissioning Test” – means the tests applied to a DER by the Applicant after construction is completed. The scope of the Commissioning Tests performed shall include the Commissioning Test specified IEEE Standard 1547 Section 11.2.5 “Commissioning tests”.

“Community Renewable Energy Facility” or “CREF” – means an energy facility with a capacity no greater than five (5) megawatts that: (a) uses renewable resources defined as a Tier One Renewable Source in accordance with Section 3(15) of the Renewable Energy Portfolio Standard Act of 2004, effective April 12, 2005, (D.C. Law 15-340; D.C. Official Code § 34-1431(15) (2019 Repl.), as amended); (b) is located within the District of Columbia; (c) has at least two (2) Subscribers; and (d) has executed an Interconnection Agreement and a CREF Rider with the Electric Company.

“Customer” means the person or entity that receives or is entitled to receive Distribution Service through the EDS or is a retail customer of the EDC.

“Detailed Study” has the meaning provided in Section 4006.5 and Attachment D and Attachment E of the SGIR.

“Distributed Energy Resource” or “DER” means the equipment used by an Interconnection Customer to generate, store, manage, interconnect, and monitor electricity. DER includes an Interconnection Equipment Package.

“Distribution Service” means the service of delivering energy over the EDS pursuant to the approved tariffs of the EDC other than services directly related to the interconnection of a DER under the SGIR.

“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 Delivery System” or “EDS” means the equipment operated and maintained by the EDC to deliver electric service to end-users, including, without limitation, transmission and distribution lines, substations, transformers, Spot Networks, and Area Networks.

“EDS Modifications” means modifications to the EDC’s EDS that are more substantial than Minor Modifications.

“Energy Storage Device” means a device that captures energy produced at one time, stores that energy for a period of time, and delivers that energy as electricity for use at a future time. For the purposes of the SGIR, an Energy Storage Device can be considered a DER or generator.

“Export Capacity” means the maximum Nameplate Rating of a DER in alternating current (“AC”); except where such capacity is limited by any of the methods of limiting electrical export in Section 4007.2(c), the Export Capacity shall be the net capacity as limited through the use of such methods (not including Inadvertent Export).

“Facilities Study” has the meaning provided in Section 4006.5(e) and Attachment F of the SGIR.

“Fast Track” has the meaning provided in Section 4006.2 and Attachment D and Attachment E of the SGIR.

“Fault Current” means electrical current that flows through a circuit and is produced by an electrical fault, such as phase to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase. A Fault Current is often several times larger in magnitude than the current that normally flows through a circuit.

“Host Load” means the electrical power, less the Auxiliary Load consumed by the Customer, to which the DER is connected.

“IEEE” means the Institute of Electrical and Electronic Engineers.

“IEEE Standards” means the standards published by the IEEE, available at www.ieee.org.

“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 (2020) “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.

“Inadvertent Export” means the unscheduled export of active power from a DER, exceeding a specified magnitude and for a limited duration, generally due to fluctuations in load-following behavior.

“Interconnection Agreement” means a standard form agreement between an Interconnection Customer and the EDC governing the interconnection of a DER to the EDC’s EDS, as well as the ongoing operation of the DER after it is interconnected. For the Simplified Process, the standard form Interconnection Agreement is incorporated with the Simplified Process Application, provided in Attachment C. For Fast Track or Detailed Study, the standard form Interconnection Agreement is provided in Attachment E.

“Interconnection Customer” means an Applicant that has entered into an Interconnection Agreement with the EDC to interconnect a DER.

“Interconnection Equipment Package” means a group of components connecting an electric generator with the EDS, and includes all interface equipment including switchgear, protective devices, inverters, or other interface devices. An Interconnection Equipment Package may include an integrated generator or electric source.¹⁷

“Interconnection Facilities” means the electrical wires, switches, and related equipment that are required, in addition to the facilities required to provide electric Distribution Service to a Customer, to allow interconnection. Interconnection Facilities may be located on either side of the Point of Common Coupling as appropriate to their purpose and design. Interconnection Facilities may be integral to a DER or provided separately. Interconnection Facilities may be owned by either the Interconnection Customer or the EDC. Interconnection Facilities are sole use facilities and do not include EDS Modifications or meters.

“Island” or “Islanding” means a condition on the EDC’s EDS in which one or more DERs deliver power to Customers using a portion of the EDC’s EDS that is electrically isolated from the remainder of the EDC’s EDS.

“Limited Export” means the exporting capability of a DER whose Export Capacity is limited by the use of any configuration or operating mode described in Section 4007.2(c).

¹⁷ The most common Interconnection Equipment Package is an inverter.

“Line Section” means that portion of the EDC’s EDS connected to a Customer bounded by automatic sectionalizing devices or the end of the distribution line.

“Material Modification” means a modification that has a material impact on the cost or timing of processing an Application with a later queue priority date or a change in the Point of Interconnection. A Material Modification does not include, for example, (a) a change of ownership of a DER, (b) a change or replacement of generating equipment that is a like-kind substitution in size, ratings, impedances, efficiencies, or capabilities of the equipment specified in the original Application, (c) replacement of existing inverters with inverters that conform to more recent standards after the state has adopted their use, as long as the Export Capacity does not change; or (d) a reduction in the Nameplate Rating and/or Export Capacity of the DER of ten percent (10%) or less.

“Meter Collar Adapter” – also referred to as a meter socket adapter or MSA, means an electrical device that is installed between a residential electric meter and the meter socket, for the purpose of facilitating the deployment of customer-owned or customer-leased technology. Meter socket adapter use cases include, but are not limited to, interconnection for solar installations, isolation of battery energy storage systems, and load management for electric vehicle chargers and other new loads.

“Minor System Modifications” means modifications to the EDC’s EDS that involve little work and cost less than \$8,000. Minor System Modifications include, but are not limited to, activities like changing the fuse in a fuse holder cut-out or changing the settings on a circuit recloser.

“Nameplate Rating” means the sum total capacity of all of a DER’s constituent generating or storage units, regardless of whether it is limited by any of the methods in Section 4007.2(c).

“Net Rating” means the Nameplate Rating of the DER minus the consumption of electrical power of the Auxiliary Load.

“Non-Export” or “Non-Exporting” means a DER that is sized and designed using any of the methods in Section 4007.2(c), such that the DER’s output is used for Host Load only and no electrical energy (except for any Inadvertent Export) is transferred from the DER to the EDS.

“Parties” means the Applicant and the EDC in a particular Interconnection Agreement. **“Either Party”** refers to either the Applicant or the EDC.

“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” or “PCC” means the point of connection between the EDC’s EDS and the Customer’s electrical facilities.

“Point of DER Connection” or “PoC” means the point where a DER unit is electrically

connected in a EDC's EDS and meets the requirements of IEEE Standard 1547TM-2018 exclusive of any load present in the respective part of the Customer's facility.

“Point of Interconnection” or “POI” means the point where the Interconnection Facilities connect with the EDC's EDS. This may or may not be coincident with the Point of Common Coupling.

“Power Control System” means systems or devices which electronically limit or control steady state currents to a programmable limit.

“Power Rating Configuration Setting” means the as-configured value of the active or apparent power ratings which is used as the rating within the DER. This alternative rating is associated with the nameplate information required by IEEE Standard 1547-2018 subclause 10.3, as allowed by subclause 10.4.

“Pre-Application Report” has the meaning provided in Section 4005.

“Pre-Application Report Request” has the meaning provided in Section 4005.1.

“Protective Function” means the equipment, hardware, and/or software in a DER (whether discrete or integrated with other functions) whose purpose is to protect against conditions that, if left uncorrected, could result in harm to personnel, damage to equipment, loss of safety or reliability, or operation outside pre-established parameters required by the Interconnection Agreement.

“Queue Position” – means the order of a valid Interconnection Application, as described in Section 4003.3.

“Radial Distribution Circuit” – means a circuit configuration where independent feeders branch out radially from a common source of supply. From the standpoint of the EDS, the area described is between the generating source or intervening substations and the customer's entrance equipment.

“Reference Point of Applicability” or “RPA” means a location proximate to the DER where the interconnection and interoperability performance requirements, as specified by IEEE Standard 1547-2018, apply.

“Relevant Minimum Load” means the lowest measured circuit or substation load coincident with the DER's production. For solar photovoltaic DERs with no battery storage, use daytime minimum load.

“Scoping Meeting” – has the meaning provided in Section 4006.5(c).

“Simplified Process” has the meaning provided in Section 4006.1 and Attachment C.

“Small Generator Interconnection Rules” or “SGIR” means the most current version of these procedures interconnecting DER adopted by the Public Service Commission of the District of Columbia.

“Spot Network” means a section of the EDS 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 EDC customer or to a small group of EDC customers, and has the same meaning as the term is used in IEEE Standard 1547.

“Supplemental Review” has the meaning provided in Section 4006.3.

“System Impact Study” has the meaning provided in Section 4006.5(d) and Attachment F of the SGIR.

“Technical Interconnection and Interoperability Requirements” or “TIIR” means Commission-adopted requirements for interconnection, interoperability, DER capabilities and their utilization (settings), and grid integration (e.g., protection coordination, telemetry).

“UL” means the company by that name which has established standards that relate to components of DERs.

“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.

“Unintended Island” means the creation of an Island without the approval of the EDC, usually following a loss of a portion of the EDC’s EDS.

ATTACHMENT A

Public Queue Requirements

The EDC shall maintain a publicly available interconnection queue, pursuant to Section 4003.3. available in a sortable spreadsheet format, which it shall update on at least a monthly basis. Information on Interconnection Requests shall be retained in the queue for three (3) years. The date of the most recent update shall be clearly indicated.¹⁸ Queue numbers shall be numerical integers reflecting the queue order of the pending applications.

The queue should include, at a minimum, the following information on each Interconnection Application:

1. Queue number
2. Nameplate Rating (kW)
3. Export Capacity (kW)
4. Primary fuel type (*e.g.*, solar, wind, bio-gas, etc.)
5. Secondary fuel type (if applicable)
6. Exporting or non-exporting
7. NEM or CREF
8. Zip code
9. Substation
10. Feeder
11. Status (active, withdrawn, interconnected, etc.)
12. Date Application Received
13. Date Interconnection Request deemed complete
14. Review Level (A, B, or C)
15. Date of notification of Level A/Level B screen results (if applicable)
16. Screen results, for projects undergoing review under Level A/Level B (pass or fail, and if fail, identify the screens failed)
17. Date of notification of Supplemental Review results (if applicable)
18. Supplemental Review results (pass or fail, and if fail, identify the screens failed)
19. Date of notification of System Impact Study results (if applicable)
20. Date of notification of Facilities Study results and/or construction estimates (if applicable)
21. Date of Receipt of Electric Code Official Certification
22. Date of Completion of Construction by EDC (if applicable)
23. Date Interconnection Agreement is signed by Applicant
24. Date Interconnection Agreement is signed by EDC
25. Date of Inspection (or indication that Inspection has been waived)
26. Date of Meter Swap (if applicable)
27. Date of Operation
28. Final total interconnection cost paid to EDC

¹⁸ Once these amended procedures and queue requirements go into effect, the EDC shall start a new tab in the spreadsheet file for all new interconnections, maintain the original tab for prior completed interconnections or interconnections that are underway for the period of 3 years, as required. Once those in the queue have been present for more than three years, the first tab may be removed from the spreadsheet.

ATTACHMENT B
Codes and Standards

1. IEEE Standard 1547TM-2018, IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces¹⁹
2. IEEE Standard 1547.1TM-2020, IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems and Associated Interfaces
3. ANSI C84.1-2020, Electric Power Systems and Equipment—Voltage Ratings (60 Hertz)
4. IEEE Standard 1547.7TM-2013, IEEE Guide for Conducting Distribution Impact Studies for Distributed Resource Interconnection
5. IEEE Standard 519TM-2022, IEEE Standard for Harmonic Control in Electric Power Systems
6. IEEE Standard 1453TM-2022, IEEE Standard for Measurement and Limits of Voltage Fluctuations and Associated Light Flicker on AC Power Systems
7. IEEE C37.95TM-2014, IEEE Guide for Protective Relaying of Utility-Consumer Interconnections
8. IEEE Standard C50.13TM-2014, IEEE Standard for Cylindrical-Rotor 50 Hz and 60 Hz Synchronous Generators Rated 10 MVA and Above
9. IEEE Standard C62.92.1TM-2016, IEEE Guide for the Application of Neutral Grounding in Electric Utility Systems—Part I: Introduction
10. IEEE Standard C62.92.2TM-2017, IEEE Guide for the Application of Neutral Grounding in Electric Utility Systems, Part II—Synchronous Generator Systems
11. IEEE Standard C62.92.6TM-2017, IEEE Guide for Application of Neutral Grounding in Electrical Utility Systems, Part VI—Systems Supplied by Current-Regulated Sources
12. UL 1741, Edition 3, September 28, 2021, Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources²⁰
13. UL 1741 Certification Requirement Decision for Power Control Systems, March 8, 2019, Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources

¹⁹ IEEE Standard 1547-2018 provides: “For DER interconnections that include individual synchronous generator units rated 10 MVA and greater, and where the requirements of this standard conflict with the requirements of IEEE Std C50.12 or IEEE Std C50.13, the requirements of IEEE Std C50.12 or IEEE Std C50.13, as relevant to the type of synchronous generator used, shall prevail.”

²⁰ 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.

ATTACHMENT C

Simplified Process (Level A) Application and Interconnection Agreement

This Application is complete when it provides all applicable and correct information required below and includes a one-line diagram, if required by the EDC. This form shall be made available in an electronically fillable format and it shall be permissible to submit the form with electronic signatures.

Written Applications should be submitted by mail or e-mail to:

EDC: _____

Address: _____

Email Address: _____

EDC Contact Name: _____

EDC Contact Title: _____

1. Applicant Information:

Legal Name of Applicant (if an individual, individual's full name):

Name: _____

Address: _____

City: State, Zip: _____

Telephone (Day): _____ (Evening): _____

Email Address: _____

EDC Customer Number (if applicable): _____

Electricity Provider (if different from EDC): _____

Representative (if different from Applicant):

Name: _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Email Address: _____

2. DER Specifications:

All power ratings should be listed in AC throughout.

Location (if different from above): _____

Facility Owner: _____

Applicant Load: _____ (kW) (if none, so state)

Typical Reactive Load (if known): _____

Total Number and Type of Generators to be Interconnected Pursuant to This Application:

Total Number of Inverters to be Interconnected Pursuant to This Application: _____

Total Aggregate Nameplate Output Rating for All Generators: _____ (kW) _____

_____ (kVA)

Export Capacity¹: _____ (kW) _____ (kVA)

a. Energy Storage Information (if any):

Total Aggregate Nameplate Charge Rating: _____ (kW) _____

(kVA) Does the storage share an inverter with another generator? ☐ Yes ☐ No

Does the applicant intend to have the storage charged by the EDC? ☐ Yes ☐ No

b. Limited-Export / Non-Export / Limited-Import Data:

If multiple export or import control systems are used, provide for each control system and use additional sheets if needed.

Is export controlled to less than the Total Aggregate Nameplate Output Rating?

☐ Yes ☐ No

If the applicant intends to have the storage charged by the EDC, is import controlled to less than the total aggregate nameplate charge rating? ☐ Yes ☐ No

If storage is import-limited, describe the method of import limitation: _____

Method of export limitation: _____ Reverse Power Protection (Device 32R)
_____ Minimum Power Protection (Device 32F)
_____ Relative DER Rating
_____ Directional Power Protection (Device 32)
_____ Configured Power Rating
_____ Power Control System (PCS)

_____ Export Control using mutually agreed-upon

Control Power Limit Setting: _____ (kW) _____ (kVA)

Control Time Delay (if any): _____

If Power Control System is used,
Open-Loop Response Time: Maximum _____ Average _____

When grid-connected, will the PCS employ any of the following? [Select all that apply]

- ☐ Unrestricted mode
- ☐ Export-only mode
- ☐ Import-only mode
- ☐ No exchange mode
- ☐ Export-limiting from all sources
- ☐ Export-limiting from ESS
- ☐ Import-limiting to ESS

Export controls are applied to how many generators?

☐ One ☐ Multiple (indicate number): _____

Describe which generators the export control system controls:

c. IEEE Standard 1547TM-2018-related information:

If the desired RPA location is NOT at the Point of DER Connection (PoC), describe the desired RPA location:

In addition to grid-connected mode, will the DER operate as an intentional local Electric Power System island (also known as “microgrid” or “standby mode”)?

d. Individual Generator Data:

Provide for each generator, use additional sheets if needed.

Generator Technology: Photovoltaic / Turbine / Fuel Cell / Energy Storage / Other (describe):

Generatorⁱⁱ Manufacturer, Model Name & Number:

Version Number:

Energy Source: Solar / Wind / Hydro / Other (describe): _____

_____ If Energy

Storage, usable capacity at maximum discharge rate: _____ (kWh)

e. Individual Inverter (or Energy Storage System) Data (if any):

Provide for each inverter, use additional sheets if needed.

Inverter (or Energy Storage System) Manufacturer: _____

_____ Model Name & Number:

_____ Version Number:

Nameplate Rating: _____ (kW) _____ (kVA)

AC Voltage Nominal Rating: _____ (Volts)

Rated Power Factor: (Underexcited) _____ (Overexcited) _____

Minimum Power Factor: (Underexcited) _____ (Overexcited) _____

☐ Single-phase ☐ Three-phase (check one)

List of adjustable set points for the protective equipment or software:

Do export controls apply to this inverter? ☐ Yes ☐ No

Do import controls apply to this inverter or energy storage system? ☐ Yes ☐ No

Max design fault contribution current: (Instantaneous) _____ (RMS) _____ Is the

inverter certified to UL 1741? ☐ Yes ☐ No

If yes, attach evidence of UL 1741 certification.

If required by the EDC, attach a one-line diagram of the DER.

3. Signatures (may be electronic):

a. Applicant Signature (may be electronic)

I designate the individual or company listed as my Representative to serve as my agent for the purpose of coordinating with the EDC on my behalf through the interconnection process INITIAL: _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the terms and conditions for a Simplified Process Interconnection Agreement, provided on the following pages.

Signed: _____

Title: _____

Date: _____

Operation is contingent on EDC approval to interconnect the DER.

b. EDC Signature (may be electronic)

Interconnection of the DER is approved contingent upon the terms and conditions for a Simplified Process Interconnection Agreement, provided on the following pages ("Agreement").

EDC Signature: _____

Title: _____ Application ID number: _____

Date: _____

EDC waives inspection? Yes _____ No _____

Terms and Conditions for a Simplified Process (Level A) Interconnection Agreement

1.0 Construction of the DER

After the EDC executes the Interconnection Agreement by signing the Applicant's Simplified Process Application, the Applicant may construct the DER, including interconnected operational testing not to exceed two hours.

2.0 Interconnection and Operation

The Applicant may operate the DER and interconnect with the EDC's Electric Delivery System once all of the following have occurred:

The DER has been inspected and approved by the appropriate local electrical wiring inspector with jurisdiction, and the Applicant has sent documentation of the approval to the EDC; and

The EDC has either:

Inspected the DER and has not found that the DER fails to comply with a Simplified Process technical screen or a UL or IEEE standard; or

Waived its right to inspect the DER by not scheduling an inspection in the allotted time; or

Explicitly waived the right to inspect the DER.

3.0 Safe Operations and Maintenance

The Interconnection Customer shall be fully responsible for operating, maintaining, and repairing the DER as required to ensure that it complies at all times with IEEE Standard 1547TM-2018.

4.0 Access

The EDC shall have access to the metering equipment of the DER at all times. The EDC shall provide reasonable notice to the Interconnection Customer when possible prior to using its right of access.

5.0 Disconnection

The EDC may temporarily disconnect the DER upon the following conditions:

For scheduled outages upon reasonable notice.

For unscheduled outages or emergency conditions.

If the DER does not operate in the manner consistent with these terms and conditions of the Agreement.

The EDC shall inform the Interconnection Customer in advance of any scheduled disconnection, or as soon as possible after an unscheduled disconnection.

6.0 Indemnification

Each Party 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's fees, and all

other obligations by or to third parties, arising out of or resulting from the indemnified 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.

7.0 Insurance

The Interconnection Customer is not required to provide general liability insurance coverage as part of this Agreement, or through any other EDC requirement.

8.0 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, except as allowed under paragraph 6.0 (Indemnification).

9.0 Termination

This Agreement may be terminated under the following conditions:

By the Interconnection Customer: By providing written notice to the EDC.

By the EDC: If the DER fails to operate for any consecutive 12-month period or the Interconnection Customer fails to remedy a violation of these terms and conditions of the Agreement.

Permanent Disconnection: In the event the Agreement is terminated, the EDC shall have the right to disconnect its facilities or direct the Interconnection Customer to disconnect its DER.

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.

10.0 Assignment

For a DER offsetting part or all of the load of an EDC customer at a given site, that customer is the Interconnection Customer and that customer may assign its Interconnection Agreement to a subsequent occupant of the site. For a DER providing energy directly to an EDC, the Interconnection Customer is the owner of the DER and may assign its Interconnection Agreement to a subsequent owner of the DER. Assignment is only effective after the assignee provides written notice of the assignment to the EDC and agrees to accept the Interconnection Customer's responsibilities under the Interconnection Agreement.

ATTACHMENT D

Fast Track and Detailed Study (Level B and C) Interconnection Application

An Application is complete when it provides all applicable information required below and any required Application fee. A one-line diagram and a load flow data sheet must be supplied with this Application. Additional information to evaluate a request for interconnection may be required after an Application is deemed complete; however, the EDC shall endeavor to identify data needs upfront rather than repeatedly asking for additional information. This form should be made available in an electronically fillable format and it shall be permissible to submit the form with electronic signatures.

Applicant requests review under (select one):

_____ Fast Track (Level B) _____ Detailed Study (Level C)

Written Applications should be submitted by mail or email to:

EDC: _____

Address: _____

Email Address: _____

EDC Contact Name: _____

EDC Contact Title: _____

1. Applicant Information:

Legal Name of Applicant (if an individual, individual's full name):

Name: _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Email Address: _____

Representative (if different from Applicant):

Name: _____

Address: _____

City, State, Zip: _____

Telephone (Day): _____ (Evening): _____

Email Address: _____

Type of interconnection (choose one):

- _____ Net Metering
- _____ Load Response (no export)
- _____ Wholesale Provider

EDC Account Number (for DERs at EDC customer locations) ⁱ _____

2. DER Specifications:

All power ratings should be listed in AC throughout.

Location (if different from above): _____

Facility Owner: _____

Applicant Load: _____ (kW) (if none, so state)

Typical Reactive Load (if known): _____

Total number and type of generators to be interconnected pursuant to this Application:

Total number of inverters to be interconnected pursuant to this Application: _____

Total Aggregate Nameplate Output Rating for all Generators:

_____ (kW) _____ (kVA)

Export Capacityⁱⁱ: _____ (kW) _____ (kVA)

a. Energy Storage Information (if any):

Total Aggregate Nameplate Charge Rating _____ (kW)

_____ (kVA)

Does the storage share an inverter with another generator? ☐ Yes ☐ No

Does the applicant intend to have the storage charged by the EDC? ☐ Yes ☐ No

b. Limited-Export / Non-Export / Limited-Import Data:

If multiple export or import control systems are used, provide for each control system and use additional sheets if needed.

Is export controlled to less than the Total Aggregate Nameplate Output Rating?

☐ Yes ☐ No

If the applicant intends to have the storage charged by the EDC, is import controlled to less than the total aggregate nameplate charge rating? ☐ Yes ☐ No

If storage is import-limited, describe the method of import limitation: _____

Method of export limitation:

_____ Reverse Power Protection (Device 32R)

_____ Minimum Power Protection (Device 32F)

_____Relative DER Rating
 _____Directional Power Protection (Device 32)
 _____Configured Power Rating
 _____Power Control System (PCS)
 _____Export Control using mutually agreed-upon

Control Power Limit Setting: _____ (kW) _____(kVA)

Control Time Delay (if any): _____

If Power Control System is used, Maximum_____ Average_____

Open-Loop Response Time:

When grid-connected, will the PCS employ any of the following? [Select all that apply]

- ☐ Unrestricted mode
- ☐ Export-only mode
- ☐ Import-only mode
- ☐ No exchange mode
- ☐ Export-limiting from all sources
- ☐ Export-limiting from ESS
- ☐ Import-limiting to ESS

Export controls are applied to how many generators?

- ☐ One ☐ Multiple (indicate number) _____

Describe which generators the export control system controls: _____

c. IEEE Standard 1547™-2018 Related Information:

Where is the desired RPA location? [Check one]

- ☐ Point of DER connection (PoC)
- ☐ Point of Common Coupling (PCC)
- ☐ Another point between PoC and PCC (must be denoted in the one-line diagram)
- ☐ Different RPAs for different generators (must be denoted in the one-line diagram)

Is the RPA location the same as above for detection of abnormal voltage, faults, and open- phase conditions?

- ☐ Yes
- ☐ No (detection location must be denoted in the one-line diagram)

Why does this DER fit the chosen RPA? [Check all that apply]

- ☐ Zero-sequence continuity between PCC and PoC is maintained
- ☐ The DER aggregate Nameplate Rating is less than 500 kVA
- ☐ Annual average load demand is greater than 10% of the aggregate DER Nameplate

Rating, and it is not capable of, or is prevented from, exporting more than 500 kVA for longer than 30 seconds.

Does the DER utilize export limiting for the Limit Maximum Active Power function?

☐ Yes ☐ No

Which equipment(s) achieves this functionality? _____

Is the equipment certified for export limiting (PCS, or “plant controller” via IEEE Std 1547.1 test 5.13)? ☐ Yes ☐ No

In addition to grid-connected mode, will the DER operate as an intentional local EPS island (also known as “microgrid” or “standby mode”)? ☐ Yes ☐ No

When grid-connected, does the DER employ active or reactive power functions not specified in IEEE Std 1547 (such as the Set Active Power function)? ☐ Yes ☐ No

If so, describe the functions: _____

Is the DER, or part of the DER, designated as emergency, legally required, or critical facility backup power? ☐ Yes ☐ No

(If yes, denote the emergency generators and applicable portions of the DER in the submitted one-line diagram)

How is the voltage-active power function (volt-watt) implemented? [Check one]

- ☐ N/A (voltage-active power function will not be implemented per EDC)
- ☐ All generators follow the same functional settings (same per-unit curve regardless of individual unit Nameplate Rating)
- ☐ Different generators follow different functional settings (different per-unit curves for individual unit Nameplate Ratings)
 - Denote in one-line diagram the voltage-active power settings of each generator
- ☐ A plant controller or other supplemental DER device manages output of the entire system (one per-unit curve based on total system Nameplate Rating)
 - If selected, is the managing device certified for the voltage-active power function?
☐ Yes ☐ No
- ☐ Export limit is utilized (power control system manages export based on total system Nameplate Rating)
 - If selected, is the managing device certified for the voltage-active power function?
☐ Yes ☐ No

d. Individual Generator Data:

Provide for each generator, use additional sheets if needed.

Generator Technology: Photovoltaic / Turbine/ Fuel Cell / Energy Storage/ Other (describe):

Generatorⁱⁱⁱ Manufacturer, Model Name & Number:

Version Number:

Generator Nameplate Rating:

Energy Source: Solar / Wind / Hydro / Other (describe):

_____ If energy

storage, usable capacity at maximum discharge rate: (kWh)

If energy storage, what is the discharge ramp rate? _____

(kW/s) If energy storage, what is the charge ramp rate? (kW/s)

e. Individual Inverter (or Energy Storage System) Data (if any):

Provide for each inverter, use additional sheets if needed.

Inverter (or Energy Storage System) Manufacturer:

_____ Model Name & Number:

_____ Version Number:

Nameplate Output Rating: (kW) _____

(kVA) Nameplate Charge Rating: (kW) _____

(kVA) AC Voltage Nominal Rating: (Volts)

Rated Power Factor: (Underexcited) _____ (Overexcited) _____

Minimum Power Factor: (Underexcited) _____ (Overexcited) _____ Do

export controls apply to this inverter or energy storage system? ☐ Yes ☐ No

Do import controls apply to this inverter or energy storage system? ☐ Yes ☐ No

☐ Single-phase ☐ Three-phase (check one)

List of adjustable set points for the protective equipment or software: _____

Max design fault contribution current: (Instantaneous) _____ (RMS)

_____ Is the inverter certified to
UL 1741? ☐ Yes ☐ No
If yes, attach evidence of UL 1741 certification.

f. Rotating Machines (of any type):

Manufacturer, Model Name & Number: _____
_____ Version Number: _____
_____ Nameplate Output Power Rating:(kW) _____
_____ (kVA) _____ Rated Power Factor:
(Underexcited) _____ (Overexcited) _____
Minimum Power Factor: (Underexcited) _____ (Overexcited) _____
☐ Single-phase ☐ Three-phase (check one)
List of adjustable set points for the protective equipment or software: _____

Do export controls apply to this machine? ☐ Yes ☐ No
RPM Frequency: _____
Neutral Grounding Resistor (if applicable): _____

List components of the Interconnection Equipment Package that are certified to UL or IEEE standards:

Equipment Type	Certifying Entity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Is the prime mover compatible with the Interconnection Equipment Package?
☐ Yes ☐ No

g. Synchronous Generators:

Direct Axis Synchronous Reactance, X_d : _____ (pu)
Direct Axis Transient Reactance, X'_d : _____ (pu)
Direct Axis Subtransient Reactance, X''_d : _____ (pu)
Negative Sequence Reactance, X_2 : _____ (pu)

Zero Sequence Reactance, X_0 : _____ (pu)

kVA Base: _____

Field Volts: _____

Field Amperes: _____

For synchronous generators, provide appropriate IEEE model block diagram of excitation system, governor system, and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

h. Induction Generators:

Motoring Power (kW): _____

I^2t or K (Heating Time Constant): _____

Rotor Resistance, R_r : _____ Rotor Reactance, X_r : _____

Stator Resistance, R_s : _____ Stator Reactance, X_s : _____

Magnetizing Reactance, X_m : _____

Short Circuit Reactance, X_d : _____

Exciting Current: _____

Temperature Rise: _____

Frame Size: _____

Design Letter: _____

Reactive Power Required in Vars (No Load): _____

Reactive Power Required in Vars (Full Load): _____

Total Rotating Inertia, H: _____ pu on kVA Base

3. Transformer and Protective Relay Specifications:

Will a transformer be used between the generator and the Point of Common Coupling?

☐ Yes ☐ No

Will the transformer be provided by the Interconnection Customer?

☐ Yes ☐ No

a. Transformer Data (if applicable, for Interconnection Customer- Owned Transformer):

Is the transformer: ☐ Single-phase ☐ Three-phase (check one) Size:

_____ kVA

Transformer Impedance: _____ percent on _____ kVA

Base If three-phase:

Transformer Primary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Tertiary: _____ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

b. Transformer Fuse Data (if applicable, for Interconnection Customer-Owned Fuse):

(Enclose/Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: _____ Type: _____

Size: _____ Speed: _____

c. Interconnecting Circuit Breaker (if applicable):

Manufacturer: _____ Type: _____

Load Rating (Amps): _____ Interrupting Rating (Amps): _____

Trip Speed (Cycles): _____

d. Interconnection Protective Relays (if applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

Setpoint Function	Minimum	Maximum
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____

e. Discrete Components (if applicable):

(Enclose/Attach Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____

Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____

Proposed Setting: _____

Manufacturer: _____ Type: _____ Style/Catalog No.: _____

Proposed Setting: _____

f. Current Transformer Data (if applicable):

(Enclose/Attach Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

g. Potential Transformer Data (if applicable):

Manufacturer: _____

Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____

4. General Information

Enclose/attach copy of site electrical one-line diagram showing the configuration of all DER equipment, current and potential circuits, and protection and control schemes. This one-line diagram must be signed and stamped by a licensed Professional Engineer if the DER is larger than 200 kW.

Is one-line diagram enclosed? ☐ Yes ☐ No

Enclose/attach copy of any site documentation that indicates the precise physical location of the proposed DER and all protective equipment (e.g., USGS topographic map or other diagram or documentation).

Is site documentation enclosed? ☐ Yes ☐ No

Enclose/attach copy of any site documentation that describes and details the operation of the protection and control schemes.

Is available documentation enclosed? ☐ Yes ☐ No

Enclose/attach copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are schematic drawings enclosed? ☐ Yes ☐ No

4. Applicant Signature (may be electronic):

I designate the individual or company listed as my Representative to serve as my agent for the purpose of coordinating with the EDC on my behalf through the interconnection process. INITIAL: _____

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Application is true and correct. I also agree to install a warning label provided by (EDC) on or near my service meter location. DERs must be compliant with IEEE, NEC, ANSI, and UL standards, where applicable. By signing below, the Applicant also certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Signature of Applicant: _____ Date: _____

5. Information Required Prior to Physical Interconnection:

A signed Department of Buildings inspection certificate must be provided to the EDC prior to interconnected operation.

ATTACHMENT E

Fast Track and Detailed Study Interconnection Agreement

(Standard Agreement for Interconnection of DERs)

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

Recitals:

Whereas, Interconnection Customer, as an Applicant, is proposing to develop a Distributed Energy Resource ("DER"), or Export Capacity addition to an existing DER, consistent with the Application completed by Interconnection Customer on _____; and

Whereas, Interconnection Customer desires to interconnect the DER with the EDC's Electric Delivery System;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all approved Fast Track and Detailed Study Interconnection Applications according to the procedures set forth in the Interconnection Procedures. Capitalized terms in this Agreement if not defined in the Agreement have the meanings set forth in the Interconnection Procedures.
- 1.2 This Agreement governs the terms and conditions under which the DER will interconnect to, and operate in parallel with, the EDC's Electric Delivery System.
- 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 EDC and Interconnection Customer. However, in the event that the provisions of this Agreement are in conflict with the provisions of a Utility tariff, the Utility 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, and operating requirements.

- 1.5.2 The Interconnection Customer shall construct and operate the DER in the manner specified in the Application. If design or operational changes are made, and agreed upon by the EDC, during the interconnection review process those shall be specified in an Exhibit to this Agreement.
- 1.5.3 The Interconnection Customer shall arrange for the construction, interconnection, operation, and maintenance of the DER in accordance with the applicable manufacturer's recommended maintenance schedule, in accordance with this Agreement.
- 1.5.4 The EDC shall construct, own, operate, and maintain its Electric Delivery System and its facilities for interconnection ("Interconnection Facilities") in accordance with this Agreement.
- 1.5.5 The Interconnection Customer agrees to arrange for the construction of the DER or systems in accordance with applicable specifications that meet or exceed the National Electrical Code, the American National Standards Institute, IEEE, UL, and any operating requirements.
- 1.5.6 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 Exhibits to this Agreement and shall do so in a manner so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the other Party.
- 1.5.7 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.

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

2.1 Equipment Testing and Inspection

The Interconnection Customer shall arrange for the testing and inspection of the DER prior to interconnection in accordance with IEEE Standard 1547TM-2018 and the Interconnection Procedures.

2.2 Inspection Certificate

Prior to commencing parallel operation, the Interconnection Customer shall provide the EDC with a signed Department of Buildings inspection certificate.

2.3 Authorization

The Interconnection Customer is authorized to commence parallel operation of the DER when there are no contingencies noted in this Agreement remaining.

2.4 Parallel Operation Obligations

The Interconnection Customer shall abide by all permissible written rules and procedures developed by the EDC which pertain to the parallel operation of the DER. In the event of conflicting provisions, the Interconnection Procedures shall take precedence over a EDC's rule or procedure, unless such EDC rule or procedure is contained in an approved tariff, in which case the provisions of the tariff shall apply. Copies of the EDC's rules and procedures for parallel operation are either provided as an exhibit to this Agreement or in an exhibit that provides reference to a website with such material.

2.5 Reactive Power

The Interconnection Customer shall design its DER to maintain a composite power delivery at continuous rated power output at the Point of Common Coupling with reactive power within the range specified by IEEE Standard 1547TM-2018 for Category_____ ⁱ

2.6 Right of Access

At reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the EDC shall have reasonable access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on the EDC under this Agreement, or as is necessary to meet a legal obligation to provide service to customers.

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

3.1 Effective Date

This Agreement shall become effective upon execution by both of the Parties.

3.2 Term of Agreement

This Agreement shall remain in effect 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 twenty (20) Business Days' written notice.

3.3.2 Either Party may terminate this Agreement pursuant to Article 6.6.

3.3.3 Upon termination of this Agreement, the DER will be disconnected from the Electric Delivery 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.

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

3.4 Temporary Disconnection

The EDC may temporarily disconnect the DER from the Electric Delivery System for so long as reasonably necessary in the event one or more of the following conditions or events:

3.4.1 Emergency Conditions: “Emergency Condition” shall mean a condition or situation:

- (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or
- (2) that, in the case of EDC, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of the EDC’s Interconnection Facilities or damage to the Electric Delivery System; or
- (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the DER.

Under emergency conditions, the EDC or the Interconnection Customer may immediately suspend interconnection service and temporarily disconnect the DER. 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 DER. 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 Delivery 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 any necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair: The EDC may interrupt interconnection service or curtail the output of the DER and temporarily disconnect the DER from the Electric Delivery System when necessary for routine maintenance, construction, and repairs on the Electric Delivery System. The EDC shall provide the Interconnection Customer with five (5) Business Days’ notice prior to such interruption. The EDC shall use reasonable efforts to coordinate such repair or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages: During any forced outage, the EDC may suspend interconnection service to effect immediate repairs on the Electric Delivery System. The EDC shall make reasonable efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the EDC shall, upon 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 DER if, based on good utility practice, the EDC determines that operation of the DER will

likely cause unreasonable disruption or deterioration of service to other EDC customers served from the same electric system, or if operating the DER could cause damage to the Electric Delivery System. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. The EDC may disconnect the DER if, after receipt of the notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time which shall be at least five (5) Business Days from the date the Interconnection Customer receives the EDC's written notice supporting the decision to disconnect, unless emergency conditions exist in which case the provisions of Article 3.4.1 apply.

3.4.5 Modification of the DER: The Interconnection Customer must receive written authorization from the EDC before making any change to the DER that may have a material impact on the safety or reliability of the Electric Delivery System. Such authorization shall not be unreasonably withheld. Modifications shall be completed in accordance with good utility practice. Requests for modification and approval of such requests shall be made in accordance with Section 4003.4 of the SGIR. If the Interconnection Customer makes such modification without the EDC's prior written authorization, the latter shall have the right to temporarily disconnect the DER.

3.4.6 Reconnection: The Parties shall cooperate with each other to restore the DER, Interconnection Facilities, and the Electric Delivery System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and EDS Modifications

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in the Exhibits to this Agreement ("Interconnection Facilities"). If a Facilities Study was performed, the EDC shall identify its Interconnection Facilities necessary to safely interconnect the DER with the Electric Delivery 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 share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its Interconnection Equipment Package, and (2) operating, maintaining, repairing, and replacing the EDC's Interconnection Facilities as set forth in any exhibits to this Agreement.

4.2 EDS Modifications

The EDC shall design, procure, construct, install, and own any EDS Modifications. The actual cost of the modifications, including overheads, shall be assigned to the Interconnection Customer as specified in Section 4006.2(l) or Section 4006.5(j).

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

5.1 Billing and Payment Procedures and Final Accounting

- 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 EDS Modifications contemplated by this Agreement as set forth in the exhibits to this Agreement, 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 by the Parties.
- 5.1.2 The EDC shall provide a final invoice and cost variance report in accordance with Section 4006.2(l) or Section 4006.5(j). 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) Business Days of the final accounting report.

5.2 Interconnection Customer Deposit

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 EDS Modifications, the Interconnection Customer shall provide the EDC with a deposit equal to fifty percent (50%) of the estimated cost.

Article 6. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

6.1 Assignment

This Agreement may be assigned by either Party as provided below upon fifteen (15) Business Days' prior written notice to the other Party.

- 6.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party 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 DER.
- 6.1.3 For a DER offsetting part or all of the load of an EDC customer at a given site, that customer is the Interconnection Customer and that customer may assign its Interconnection Agreement to a subsequent occupant of the site. For a DER providing energy directly to the EDC, the Interconnection Customer is the owner of the DER and may assign its Interconnection Agreement to a subsequent owner of the DER. Assignment is only effective after the assignee provides written notice of the assignment to the EDC and agrees to accept the Interconnection Customer's responsibilities under this Interconnection Agreement.
- 6.1.4 All other assignments shall require the prior written consent of the non-

assigning Party, such consent not to be unreasonably withheld.

- 6.1.5 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 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, special, consequential, or punitive damages, except as specifically authorized by this 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 Each Party 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's fees, and all other obligations by or to third parties, arising out of or resulting from the indemnified 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 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, the indemnifying Party shall, after reasonable notice from the indemnified Party, assume the defense of such claim. If the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, the 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.
- 6.3.4 If the indemnifying Party is obligated to indemnify and hold the indemnified Party harmless under this Article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.
- 6.3.5 Promptly after receipt 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.

6.4 Consequential Damages

Neither Party shall be liable under any provision of this Agreement for any losses, damages, costs, or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment, or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

6.5 Force Majeure

6.5.1 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, 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 negligence or intentional wrongdoing.

6.5.2 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 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 will 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 by the Affected Party. The Affected Party shall use reasonable efforts to resume its performance as soon as possible.

6.6 Default

6.6.1 Default exists where a Party has materially breached any provision of this Agreement, except that no default shall exist where a 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.

6.6.2 Upon a default, the non-defaulting Party shall give written notice of such default to the defaulting Party. Except as provided in Article 6.6.3, 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 sixty (60) calendar days, the defaulting Party shall commence efforts to cure within twenty (20) calendar days after notice and

continuously and diligently pursue 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.

- 6.6.3 If a default is not cured as provided 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

The Interconnection Customer is not required to provide insurance coverage for EDC damages beyond what is approved by the Public Service Commission, in accordance with Section 4007.7(f). It is, however, recommended that the Interconnection Customer protect itself with liability insurance.

Article 8. Dispute Resolution

Any dispute arising from or under the terms of this Agreement shall be subject to the dispute resolution procedures contained in Section 4008 of the SGIR.

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 District of Columbia without regard to its conflicts of law principles. This Agreement is subject to all applicable laws and regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a governmental authority.

9.2 Amendment

The Parties may only amend this Agreement 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 will 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 failure to comply with any other obligation, right, or duty of this Agreement. Termination or default of this Agreement for any reason by the Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the EDC. Any waiver of this Agreement shall, if requested, be provided in writing.

9.5 Entire Agreement

This Agreement, including all exhibits, 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 which 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 of which constitute one and the same Agreement.

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 nor 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 DER or the Interconnection Facilities/EDS Modifications, 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 liable 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; provided, however, that in no event shall the EDC be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. 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 carrier service, or sent by first class mail, postage prepaid, to the person specified below:

Interconnection Customer:

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Email: _____

EDC:

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Email: _____

10.2 Billing and Payment

Billings and payments to Interconnection Customer shall be sent to the address provided in Section 10.1 unless an alternative address is provided here:

Interconnection Customer:

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Email: _____

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: _____

Email: _____

EDC's operating representative:

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Email: _____

Article 11. Signatures

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

For the EDC:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

For the Interconnection Customer:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Exhibits incorporated in this Agreement May include:

- a) one-line diagram and site maps;
- b) Interconnection Facilities or EDS Modifications to be constructed by the EDC. The facilities exhibit shall include any milestones for both the Interconnection Customer and the EDC as well as cost responsibility and apportionments based on the ratio of export capacity to new hosting capacity;
- c) operational requirements or reference to the EDC website with these requirements—this exhibit shall require the Interconnection Customer to operate within the bounds of IEEE Standard 1547™-2018 and associated standards;
- d) reimbursement of costs (EDC may, in its sole discretion, reimburse Interconnection Customer for EDS Modifications that benefit future DERs);
- e) operating restrictions (no operating restrictions generally apply to the Simplified Process or Fast Track interconnections but may apply, in the discretion of the EDC, to DERs approved under Detailed Study. Design or operating changes or limitations that are different from the application should be identified);
- f) copies of Impact and Facilities Study Agreements.

ATTACHMENT F

System Impact and Facilities Study Agreements

As noted in the SGIR, the EDC may require that a proposed DER that falls under Detailed Study be subject to System Impact and Facilities Studies. At the EDC's discretion, any of these studies may be combined or foregone. Also, at the EDC's discretion, for any study, the Applicant may be required to provide information beyond the contents of the Application; but, the EDC shall endeavor to request all information upfront to the greatest extent possible. The study agreements are provided on the following pages.

System Impact Study Agreement

This agreement ("Agreement") is made and entered into this _____ day of _____ by and between _____, a _____ organized and existing under the laws of the District of Columbia, ("Applicant,") and _____, a _____ existing under the laws of the District of Columbia, ("EDC"). The Applicant and the EDC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, Applicant is proposing to develop a DER or Export Capacity addition to an existing DER consistent with the Application completed by Applicant on _____;

Whereas, Applicant desires to interconnect the DER with the EDC's Electric Delivery System;

Whereas, Applicant has requested the EDC perform a System Impact Study to assess the impact of interconnecting the DER to the EDC's Electric Delivery System;

Now, therefore, in consideration of and subject to the mutual covenants contained herein, the Parties agree as follows:

1. When used in this Agreement, Capitalized terms shall have the meanings indicated. Capitalized terms not defined in this Agreement shall have the meanings specified in the Interconnection Procedures.
2. Applicant elects and the EDC shall cause to be performed a System Impact Study consistent with Section 4006.5(d) of the SGIR.
3. The scope of the System Impact Study shall be based on information supplied in the Application, any prior study of the DER completed by the EDC, and any other information or assumptions set forth in any attachment to this Agreement.
4. The EDC reserves the right to request additional technical information from Applicant as may reasonably become necessary consistent with good utility practice during the course of the System Impact Study. If after signing this Agreement, Applicant modifies its Application or any of the information or assumptions in any attachment to this Agreement, the time to complete the System Impact Study may be extended.
5. The System Impact Study shall provide the following information:
 - 5.1. Identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection,
 - 5.2. Identification of any thermal overload or voltage limit violations resulting from the interconnection,
 - 5.3. Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection, and
 - 5.4. Description and good faith estimated cost of Interconnection Facilities and/or EDS Modifications required to interconnect the DER to the Electric Delivery System and to address the identified short circuit, instability, and power flow issues.
6. The EDC may require a study deposit of the lesser of fifty percent (50%) of good faith study costs or \$3,000. If required, this shall be provided by the Applicant at the time it returns this Agreement.
7. The System Impact Study shall be completed and the results transmitted to Applicant within forty (40) Business Days after this Agreement is signed by the Parties, unless the proposed DER will impact other proposed DERs.
8. Study fees shall be based on actual costs and will be invoiced to Applicant after the study is

transmitted to Applicant. The invoice shall include an itemized listing of employee time and costs expended on the study.

9. Applicant shall pay any actual study costs that exceed the deposit up to 15% above the EDC's estimate without interest within thirty (30) calendar days on receipt of the invoice. The EDC shall refund any excess amount without interest within thirty (30) calendar days of the invoice.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

For the EDC:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Date: _____

For the Applicant:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Are attachments included to supplement or modify information contained in the Application?

_____ Yes _____ No

Interconnection Facilities Study Agreement

This agreement ("Agreement") is made and entered into this _____ day of _____ by and between _____, a _____ organized and existing under the laws of the District of Columbia, ("Applicant,") and _____, a _____ existing under the laws of the District of Columbia, ("EDC"). The Applicant and the EDC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, Applicant is proposing to develop a DER or Export Capacity addition to an existing DER consistent with the Application completed by Applicant; and

Whereas, Applicant desires to interconnect the DER with the EDC's Electric Delivery System;

Whereas, the EDC has completed or waived a System Impact Study and provided the results of said studies to Applicant; and

Whereas, Applicant has requested that EDC perform a Facilities Study to specify and estimate the cost of the engineering, procurement and construction work needed to physically and electrically connect the DER to the Electric Delivery System in accordance with good utility practice.

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. When used in this agreement, capitalized terms shall have the meanings indicated. Capitalized terms not defined in this agreement shall have the meanings specified in the Interconnection Procedures.
2. Applicant elects and the EDC shall cause to be performed a Facilities Study consistent with Section 4006.5(e) of the SGIR.
3. The scope of the Facilities Study shall be subject to information supplied in the Application, and any feasibility study or System Impact Study performed by the EDC for the DER and any other information or assumptions set forth in any attachment to this agreement.
4. The EDC reserves the right to request additional technical information from Applicant as may reasonably become necessary consistent with good utility practice during the course of the Facilities Study.
5. A Facilities Study report (1) shall provide a detailed and itemized description of all required Interconnection Facilities and/or EDS Modifications to interconnect the DER to the Electric Delivery System, the estimated costs, and schedule for their construction and (2) shall address the short circuit, instability, and power flow issues identified in the System Impact Study.
6. The EDC may require a study deposit of the lesser of fifty percent (50%) of estimated good faith study costs or \$5,000. If required, this shall be provided by the Applicant at the time it returns this Agreement.
7. The Facilities Study shall be completed and the results shall be transmitted to Applicant within sixty (60) Business Days after this agreement is signed by the Parties.
8. Study fees shall be based on actual costs and will be invoiced to Applicant after the study is transmitted to Applicant. The invoice shall include an itemized listing of employee time and costs expended on the study, and shall not exceed the EDC's estimate by more than 15%.
9. Applicant shall pay any actual study costs that exceed the deposit, by up to 15% above the EDC's estimate, without interest within thirty (30) calendar days on receipt of the invoice. The EDC shall refund any excess amount without interest within thirty (30) calendar days of the invoice.

In witness whereof, the Parties have caused this agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

For the EDC:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Date: _____

For the Applicant:

Signature: _____ Date: _____

Printed Name: _____

Title: _____

Are attachments included to supplement or modify information contained in the Application and the System Impact Study (if performed)? ☐ Yes ☐ No

ATTACHMENT G

Technical Interconnection and Interoperability Requirements

Minimum Performance Requirements Based on DER Technology:

DERs shall conform with the following minimum performance requirements of IEEE Standard 1547TM-2018.

Normal and abnormal operating performance requirements based on technology type:

Technology	Normal Operating Performance Category	Abnormal Operating Performance Category
Inverter-Based DER	Category B	Category III
Rotating DER	Category A	Category I

Voltage and Frequency Trip Settings:

The DER shall comply with voltage and frequency tripping requirements of IEEE Standard 1547-2018 for the applicable Abnormal Operating Performance Category. Unless otherwise specified by the EDC, along with a detailed technical justification, the following specified settings shall be implemented.

Inverter DER response (shall trip) to abnormal voltages:

Shall Trip Function	Specified Setting	
	Clearing Time (s)	Voltage (p.u. of nominal)
OV2	0.16	1.20
OV1	13	1.10
UV1	21	0.88
UV2	2	0.50

Rotating DER response (shall trip) to abnormal voltages:

Shall Trip Function	Specified Setting	
	Clearing Time (s)	Voltage (p.u. of nominal)
OV2	0.16	1.20
OV1	2	1.10
UV1	2	0.70
UV2	0.16	0.45

DER response (shall trip) to abnormal frequencies:

Shall Trip Function	Specified Setting	
	Clearing Time (s)	Frequency (Hz)
OF2	0.16	62.0
OF1	300	61.2
UF1	300	58.5
UF2	0.16	56.5

Frequency Droop Settings:

The DER shall comply with the frequency droop requirements of IEEE Standard 1547-2018 for the applicable Abnormal Operating Performance Category. Unless otherwise specified by the EDC, along with a detailed technical justification, the following specified settings shall be implemented.

Frequency droop operating parameters:

Parameter	Specified Setting
db_{OF}, db_{UF} (Hz)	0.036
k_{OF}, k_{UF}	0.05
$T_{\text{response (small signal)}}$ (s)	5

Voltage Regulation by Reactive and Active Power Control Functions:

The DER shall comply with voltage regulation requirements of IEEE Standard 1547-2018 for the applicable Abnormal Operating Performance Category. Unless otherwise specified by the EDC, along with a detailed technical justification, the following specified settings shall be implemented.

Voltage regulation mode activation:

		Function Activation
Reactive Power Control Modes*	Constant Power Factor	Disabled
	Voltage-Reactive Power (Volt-Var)	Enabled for Categories A and B
	Active-Reactive Power	Disabled
	Constant Reactive Power	Disabled
Active Power Control Mode	Voltage-Active Power (Volt-Watt)	Enabled for Category B

*Voltage regulation functions/modes by reactive power are mutually exclusive – only one can be activated/enabled at a time.

Reference voltage:

DER shall utilize a fixed reference voltage (VRef) for volt-var.

Volt-var operating parameters:

Volt-Var Parameters	Specified Setting	
	Rotating DER	Inverter-Based DER
V_{Ref}	V_N^a	V_N^a
V_1	$0.9 V_N$	$V_{Ref} - 0.08 V_N$
V_2	V_N	$V_{Ref} - 0.02 V_N$
V_3	V_N	$V_{Ref} + 0.02 V_N$
V_4	$1.1 V_N$	$V_{Ref} + 0.08 V_N$
Q_1^b	25% injection	44% injection
Q_2	0	0
Q_3	0	0
Q_4	25% absorption	44% absorption
Open Loop Response Time	10 s	5 s

^a V_N is assumed to be set at DER nominal operating voltage.

^b The DER reactive power capability may be reduced at a lower voltage.

Volt-watt operating parameters (for Category B):

Volt-Watt Parameters	Specified Setting
V_1	$1.06 V_N$
P_1	P_{rated}
V_2	$1.1 V_N$
P_2^b	The lesser of $0.2 P_{rated}$ or P_{min}^a
$P_2'^c$	0
Open Loop Response Time	10 s

^a P_{min} is the minimum active power output in p.u. of the DER rating.

^b P_2 is applicable to DER that can only generate active power.

^c P_2' is applicable to DER that can generate and absorb active power.

Enter Service Parameters and Synchronization:

The DER shall comply with enter service and synchronization requirements of IEEE Standard 1547- 2018. Unless otherwise specified by the EDC, along with a detailed technical justification, the following specified settings shall be implemented.

DER enter service criteria:

Enter Service Criteria		Specified Setting
Voltage Within Range	Minimum Value	≥ 0.917 p.u.
	Maximum Value	≤ 1.05 p.u.
Frequency Within Range	Minimum Value	≥ 59.5 Hz
	Maximum Value	≤ 60.1 Hz
Intentional Minimum Delay		300 s
Enter Service Period (Ramp Duration)		300 s
Randomized Time Delay Maximum Interval ^a		300 s

^a For DER with a Nameplate Rating of less than 500 kVA, individual generators may use the randomized time delay as an alternative to the enter service period (ramp duration).

Additional Requirements:

EDCs may choose to specify additional requirements that are included in IEEE Std 1547-2018, including specifications for communication protocols.

Telemetry:

Telemetry may be required for DER systems with a nameplate rating of 1 MVA or higher. Telemetry must comply with IEEE 2030.5 for Customer-Owned Telemetry.

i As limited by any export controls.

ii E.g., the solar PV module manufacturer, battery manufacturer, etc.

i If the EDC requires the customer's name on the application to match the customer on the bill, this should be specified on the application.

-
- ii As limited by any export controls.
 - iii E.g., the solar PV module manufacturer, battery manufacturer, etc. The inverter information is provided below.
 - i DER may operate at lower power factors than those previously specified in interconnection rules. The EDC should specify the appropriate Category required of the DER.