SAMPLE FORMS

FORM 142-05203

GENERATING FACILITY
INTERCONNECTION APPLICATION

(5/21) T

(See Attached)

Part 1 – Introduction and Overview

A. Applicability: This Generating Facility Interconnection Application ("Application") is used to request the interconnection of a Generating Facility to San Diego Gas and Electric Company's ("SDG&E") Distribution System (over which the California Public Utilities Commission ("CPUC") has jurisdiction). Refer to SDG&E's Rule 21 to determine the specific requirements for interconnecting a Generating Facility. Capitalized terms used in this Application, and not otherwise defined herein, shall have the same meanings as defined in SDG&E's Rule 21 and Rule 1.

Except as noted in the next paragraph, this Application may be used for any Generating Facility to be operated by, or for, a Customer and/or Producer to serve part or all of its electric energy requirements that would otherwise be provided by SDG&E, including "distributed generation", "cogeneration," emergency, backup, and standby generation, and Net Energy Metering ("NEM") Generating Facilities. A simpler, shorter form is also available from SDG&E for Net Energy Metering Generating Facilities with a nameplate rating of 30 kW or less (Form 142-02765). While Customers operating Generating Facilities isolated from SDG&E's Distribution System are not obligated to enter into an Interconnection Agreement with SDG&E, parts of this Application will need to be completed to satisfy SDG&E's notice requirements for operating an isolated Generating Facility as required by the California Health and Safety Code Section 119085(b).

This Application may not be used to apply for interconnecting Generating Facilities used to participate in transactions where all, or a portion of, the electrical output of the Generating Facility is scheduled with the California Independent System Operator. Such transactions are subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC") and require a different application available from SDG&E.

This Application is not applicable for incentives and/or rebates offered by the Energy Resources Conservation and Development Commission ("CEC") or the CPUC. Please contact those agencies directly or on their respective websites (www.energy.ca.gov and www.cpuc.ca.gov).

B. Guidelines and Steps for Interconnection: This Application must be completed and sent to SDG&E along with the additional information indicated in Part 1, Section C below to initiate SDG&E's interconnection review of the proposed Generating Facility. A nonrefundable Interconnection Request (""IR") fee of $800 (payable by check or money order to San Diego Gas and Electric Company, unless otherwise specified by SDG&E) is required for all Applications except those Applications for isolated Generating Facilities, Solar and Net Energy Metering Generating Facilities under Schedules NEM, NEM-V and NMA-A. For Applicants that intend to receive service under Schedules NEM-ST, NEM-V-ST, or VNM-A-ST, an IR fee of $132 is required for all applicants with facilities equal to or less than 1MW, except for Single-family Affordable Solar Homes (SASH) Program customers. An IR fee of $800.00 is required for facilities larger than 1MW, The $800 Interconnection Request fee must be submitted separately from the Application. The check or money order must be submitted with SDG&E's "Customer Payment Remittance" ("CPR") form. A copy of the CPR form may be requested by contacting **Customer Generation** at (858) 636-5581 or email: DGInquiries@semprautilities.com . Supplemental Review and/or Detailed Study fees may be required for large capacity and/or more complex Generating Facility Interconnections; see SDG&E's Rule 21, Sections E and F.

Please indicate below if Applicant elects to pre-pay the Supplemental Review Fee:
_____ Yes _____No

This document is only an Application. Upon acceptance, SDG&E will prepare an Interconnection Agreement for execution by the "Producer," the party that will be responsible for the Generating Facility. SDG&E may also require an inspection and testing of the Generating Facility and any related Interconnection Facilities prior to giving the Producer written authorization to operate in parallel. **Unauthorized Parallel Operation may be dangerous and may result in injury to persons and/or may cause damage to equipment and/or property for which a Producer/Customer may be liable!**

Please note, other approvals may need to be acquired, and/or other agreements may need to be formed with SDG&E or regulatory agencies, such as the Air Quality Management Districts and local governmental building and planning commissions prior to operating a Generating Facility. SDG&E's authorization to operate in parallel does not satisfy the need for an Applicant to acquire such other approvals.

C. Required Documents: Each of the following documents **must be submitted** before this application will be processed. Drawings must conform to accepted engineering standards and must be legible. 11"x17" drawings are preferred.

1. A **Single-line drawing** showing the electrical relationship and descriptions of the significant electrical components such as the primary switchgear, secondary switchboard, protective relays, transformers, generators, circuit breakers, with operating voltages, capacities, and protective functions of the Generating Facility, the Customer's loads, and the interconnection with SDG&E's Distribution System. Please show the location of all required net generation electric output meters and the A.C. manually operated disconnect devices on the single line drawing.

2. **Site plans and diagrams** showing the physical relationship of the significant electrical components of the Generating Facility such as generators, transformers, primary switchgear/secondary switchboard, and control panels, the Customer's loads and the interconnection with SDG&E's Distribution System. Please show the location of all required net generation electric output meters and the A.C. manually operated disconnect devices on the site plans.

3. If an **AC Disconnect** is required, photos of the manual, visibly open, and lockable open AC Disconnect Switch, showing visible contact separation in the open position must be provided.

4. If **the point of interconnection is on the utility side of the main circuit breaker,** switchgear, switchboard, or main panel cut-sheets/shop drawings detailing the bussing, any modifications, clearances, and proposed point of interconnection must be provided. The proposal must include a signed PE stamp and modifications must be certified by the manufacturer or a qualified third party. Customers requesting disconnect/reconnect services are responsible for applicable charges. In addition, please provide before and after pictures of the point of interconnection.

Part 1 Cont'd – Introduction and Overview

5. If the project requires a **net generation output meter**, meter socket cut-sheets of the net generation output meter socket must be provided.

6. If **transformers** are used to interconnect the Generating Facility with SDG&E's Distribution System, please provide transformer nameplate information (voltages, capacity, winding arrangements, connections, impedance, et cetera).

7. If a **transfer switch** or scheme is used to interconnect the Generating Facility with SDG&E Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate.

8. If **protective relays** are used to control the interconnection, provide protection diagrams or elementary drawings showing relay wiring and connections, proposed relay settings, and a description of how the protection scheme is intended to function.

9. If costs for customer requested **disconnect/reconnect service** are required, the utility will base these costs on several factors, such as: secondary or primary service, electrical service panel size (amps) and number of phases; overhead or underground connection; size of crew needed to perform the requested service and the time of day service is requested. The cost billed to the customer for requested disconnect/reconnect service can range as high as $5,500 or higher and will be based on the actual costs incurred for the specific situation at the time the service is provided. SDG&E will inform the owner about what reasonable disconnect/reconnect procedure charges may be expected at the time of the interconnection in accordance with internal Project Management Policies and Procedures for prearranged customer-requested outages.

D. Application Instructions: Complete this application and enter this information into SDG&E's web-based form. (SDG&E strongly recommends preparing all information and materials before starting the online application.) The online web-based form can be found at: http://www.sdge.com/generation-interconnections/electric-rule-21/apply-electric-rule-21

E. Questions concerning SDG&E Online Application process can be directed to the Customer Generation Section at DGInquiries@semprautilities.com

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Mailing Instructions, Assistance:

San Diego Gas & Electric
Customer Generation
8316 Century Park Court, CP52F
San Diego, CA 92123-1582

Note: For solar and wind Net Energy Metering ("NEM") projects, please refer to the following SDG&E web site: http://www.sdge.com/nem

Selecting the Study Process

Please check one:

☐ **Fast Track Process**

☐ **Detailed Study**

- **Will be either an Independent Study Process, Distribution Group Study Process or Transmission Cluster Study Process, dependent upon the Electrical Independence Test.**

Part 2 – Identifying the Generating Facility's Location and Responsible Parties

Project Name:	*Date Received:*	*Generating Facility ID:*	*Application Expiration Date (Refer to Part 2, Section E)*

(For SDG&E Use Only)

A. Customer Electric Account Information (Behind which meter and to which electric Service Account will the Generating Facility be interconnected for parallel operation with SDG&E?)

Name shown on SDG&E Service Account	Electric Account Number	Meter Number

NOTE: Customer Electric account must match the customer's utility bill account information.

Meter Location Street Address	City	State	Zip

Customer Electric Account Contact Information (Who is the customer contact for progress updates and/or additional information?)

Contact Person	Company Name

Phone	Fax	E-mail

Mailing Address	City	State	Zip

B. Project Contact Information (Who is the project contact for this Generating Facility?)

Project Contact Person (Optional)	Company Name

Phone	Fax	E-mail

Mailing Address	City	State	Zip

B.1. Will the Generating Facility be owned by a (third) party other than the name appearing on the SDG&E service account in A. above (please check)? _____ Yes _____No

Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

B.2. Will any portion of the Generating Facility operate in a Combined Heat and Power mode such that it meets the requirements for Cogeneration as defined in Section 216.6 of the California Public Utilities Code? _____ Yes _____No

B.3. Will the Generating Facility qualify as an eligible Net Energy Metering Renewable Electrical Generation Facility as defined in Sections 2827, 2827.1 or 2827.10 of the California Public Utilities Code? _____ Yes _____No

B.4. What is the estimated annual energy production of the Generating Facility? _____kWh

C. 1. Customer - Generation Facility Interconnection Agreement ("GFIA") (applicable where the customer is the signatory on the GFIA) or Customer Generation Agreement ("CGA") Information (applicable where a 3rd party is the signatory on the GFIA; see also Section C.2 below)

Please identify the party who will sign and execute the GFIA or CGA, as applicable.

Person Executing the GFIA/CGA	Title of Person Executing GFIA/CGA

Name of Legal Entity to be entered in the Signatures Section of the GFIA/CGA	Type of Entity (e.g., a Delaware Corporation; a California Municipality)

C.2. 3rd Party Owner/Producer – GFIA Information (If applicable)

Please identify the 3rd party who will sign and execute the GFIA.

Person Executing the GFIA	Title of Person Executing GFIA

Name of Legal Entity to be entered in the Signatures Section of the GFIA	Type of Entity (e.g., a Delaware Corporation; a California Municipality)

C.3 Contractual Notice Recipients – Contact Information

Customer

Contact Person	Company Name (if applicable)

Phone	Fax (if applicable)	Email (required)

Mailing Address	City	State	Zip Code

Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

3rd Party Owner/Producer (if applicable)

Contact Person	Company Name (if applicable)

Phone	Fax (if applicable)	Email (required)

Mailing Address	City	State	Zip Code

D. Operating Date (What date is this Generating Facility expected to begin operation?)

E. Expiration Date* (The date the status of this Application is changed to "withdrawn" by SDG&E?)

*** The information submitted in this Application will remain active and valid for a period of 12 months from the date the Application was accepted by SDG&E as a "completed" Application. If the project has not received written authorization to operate in parallel, or that reasonable proof the project is going forward has not been submitted to SDG&E by that time, the Application will be considered "withdrawn". Any Interconnection Request, Supplemental Review or Detailed Study fees paid to SDG&E for corresponding reviews/studies completed by SDG&E will be forfeited.**

F. Estimated Versus Actual Cost Responsibility

If actual costs for (1) detailed interconnection studies, and/or (2) interconnection Facilities and distribution system modifications exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts, and SDG&E will refund the difference.

G. Cost Envelope Option Election for Upgrades

Please indicate below if Customer elects to participate in the Cost Envelope Option pursuant to Rule 21 Section F.7 for the costs associated with any applicable Interconnection Facilities and/or Distribution Upgrades (check below):

☐ Yes

☐ No

If "Yes" is selected, Customer must provide all of the following additional information as part of this Application:

1. Final location of the Point of Common Coupling: [*provide a description of the physical location of the Point of Common Coupling and indicate on the site drawing provided under 5 below*]
2. Final location of the Point of Interconnection: [*provide a description of the physical location of the Point of Interconnection and indicate on the site drawing provided under 5 below*]
3. Confirmation of service voltage:

Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

4. Confirmation that technical data provided in the Application is accurate, including equipment type and manufacturer:

5. A site drawing on a scale of 1:30 or less, which shows the final location of the Point of Common Coupling, Point of Interconnection, and final location and routing of conductors and equipment between the Point of Common Coupling and Point of Interconnection:

6. Identification of any constraints or limitations related to the siting or routing of conductors and equipment between the Point of Common Coupling and the Point of Interconnection: [*provide a description of the constraints/limitations and indicate their location on the site drawing provided under 5 above*]

H. Expedited Review for Non-Export AC/DC Converters

Please indicate below if the Generating Facility exclusively employs Non-Export AC/DC Converter(s) and Customer requests expedited review pursuant to Rule 21 Section F.1.b subject to the eligibility requirements of Rule 21 Section O (check below):

☐ Yes
☐ No

Part 3 - Describing the Generating Facility and Host Customer's Electrical Facilities

A. (MP&I)	Indicate the operating mode of the Generating Facility	operating mode options: __1 __2 __3 (Choose one)

Instructions and Notes

Choose from the following operating mode options:

1. **Parallel Operation:** The Generating Facility will interconnect and operate "in parallel" with SDG&E's Distribution System for more than one (1) second.
2. **Momentary Parallel Operation (MP):** The Generating Facility will interconnect and operate on a "momentary parallel" basis with SDG&E's Distribution System for a duration of one (1) second or less through transfer switches or operating schemes specifically designed and engineered for such operation.
3. **Isolated Operation (I):** The Generating Facility will be "isolated" and prevented from becoming interconnected with SDG&E's Distribution System through a transfer switch or operating scheme specifically designed and engineered for such operation.

If the answer is operating mode option 1, "parallel operation," please supply all of the information requested for the Generating Facility. Be sure to supply adequate information including diagrams and written descriptions regarding the protective relays that will be used to detect faults or abnormal operating conditions on SDG&E's Distribution System.

If the answer is operating mode option 2, "momentary parallel operation," only questions A, E and F of this Part 3 and questions A, B, E, F, J,M,N,O and T of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the switching device or scheme that will be used to limit the parallel operation period to one second or less. Please also describe the back up or protective device and controls that will trip the Generating Facility should the transfer switch or scheme not complete the transfer in one second or less.

If the answer is operating mode option 3, "Isolated Operation," only questions A, E, and F of this Part 3 and questions A, B, F, and T of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the isolating switching device or scheme that will be used to prevent the Generating Facility from operating in parallel with SDG&E's Distribution System.

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

B. Parallel Operation Applications Only	If the Answer to Section A above was operating mode option 1, please indicate the type of agreement that is being requested with this Application. If operating mode option 2 or 3 was selected, please skip to questions E and F. If agreement options 2, 3, 5, 7, 8, 9, or 10 to this Section B are chosen, please provide an estimate of the maximum kW the Generating Facility is expected to export to SDG&E's Distribution System. If SDG&E determines that the amount of power to be exported is significant in relation to the capacity available on its Distribution System, it may request additional information, including time of delivery or seasonal kW/kWh estimates.	agreement options: __1 __2 __3 __4 __5 __6 __7 __8 __9 __10 (Choose all that apply) _____ Maximum kW

Instructions and Notes

Sample agreements are available from SDG&E for review. Choose from the following thirteen (13) agreement options:

Customer Owned Generating Facility (not NEM eligible)

1. **A Generating Facility Interconnection Agreement (Form 142-05202)** that provides for parallel operation of the Generating Facility, but does not provide for exporting power to SDG&E's Distribution System.
2. **A Generating Facility Interconnection Agreement (Inadvertent Export) (Form 142-0544)** that provides for parallel operation of the Generating Facility, and the occasional, inadvertent, non-compensated, export of power to SDG&E's Distribution System
3. **A Generating Facility Interconnection Agreement (Continuous Export) (Form 142-0545)** that provides for parallel operation of the Generating Facility, and, continuous export of power to SDG&E's Distribution System.
4. **A Generating Facility Interconnection Agreement (Form 142-0543)** that provides for parallel operation of the third party owned Generating Facility, but does not provide for exporting power to SDG&E's Distribution System.
5. **A Generating Facility Interconnection Inadvertent Export Agreement (Form 142-0542)** that provides for parallel operation of the third party owned Generating Facility and the occasional, inadvertent, non-compensated, export of power to SDG&E's Distribution System for one second or less.
6. **A Customer Generation Agreement (Form 142-0541)** that defines the relationship between the Customer whose name appears on SDG&E's electric service account (this agreement must be executed in addition to 5 and 6).

Net Energy Metering Generating Facility

If Applicant intends to operate the Generating Facility under one of SDG&E's Net Energy Metering tariffs, following a bi-directional metering installation, the meter and disconnect switch must be installed in a location acceptable to SDG&E. Access to the meter and disconnect switch located on Applicant's premises must be in accordance with SDG&E Electric Rule 16, Section A 11.

7. **A Net Energy Metering Agreement (Form 142-02760)** that provides for parallel operation of a qualifying solar and/or wind Generating Facility , and exporting power to SDG&E's Distribution System under the terms of SDG&E's Net Energy Metering tariffs. This option is available only to Renewable Electrical Generating Facilities, as defined in SDG&E's Net Energy Metering tariffs.
8. **A Net Energy Metering Agreement: Fuel Cell (Form 142-02762**) that provides for parallel operation of a qualifying fuel cell Generating Facility with a capacity of not more than 1,000 kW, and exporting power to SDG&E's Distribution System for credit under the terms of SDG&E's Net Energy Metering tariffs This option is available only to eligible Generating Facilities as defined in SDG&E's Net Energy Metering tariffs

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

9, **A Net Energy Metering Agreement: Multiple Tariff (Form 117-2160)** that provides for parallel operation of a Generating Facility that consists of generators 1) eligible for service under applicable net energy metering tariffs exporting power to SDG&E's Distribution System under the terms of SDG&E's Net Energy Metering tariffs and 2) generators not eligible to receive the same tariff treatment under a Net Metering tariff. All Generating Facility Generators are electrically connected behind the same Point of Common Coupling. This option is available only to Renewable Electrical Generating Facilities, as defined in SDG&E's Net Energy Metering and other applicable tariffs

10. **Other, please describe:** _____

C. *Parallel Operation Applications Only*	If the answer to Section B above was agreement option 1 or 5, or 3 or 6, please indicate the protection option that will be used to prevent energy from being exported to SDG&E's Distribution System. If the answer to Section B above was agreement option 1 or 5 and the answer to the question above is protection option 3 or 4, please indicate if expedited processing pursuant to Section N of Rule 21 is requested (*currently applicable to non-export inverter-based energy storage generating facilities only*). If protection option 3 to this Section C is selected, please provide the continuous current rating of the host Customer facility's service entrance equipment (service panel rating): If protection option 4 to this Section C is selected, please provide the minimum load of the host Customer facility:	Protection Option: __1 __2 __3 __4 __5 __6 (Choose one) Yes___ No___ N/A___ _____ Amps _____ kW

Instructions and Notes

Refer to SDG&E's Rule 21, Section G.1.i for additional information as to how to answer this question. If the Generating Facility will never export power to SDG&E's Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and SDG&E's Distribution System. Choose from the following six protection options:

1. A reverse-power protection device will be installed to measure any export of power and trip the Generating Facility or open an intertie breaker to isolate the Generating Facility if limits are exceeded.
2. An under-power protection device will be installed to measure the inflow of power and trip or reduce the output of the Generating Facility if limits are not maintained.
3. The Generating Facility Interconnection Facility equipment has been certified as Non-Islanding and the incidental export of power will be limited by the design of the interconnection. If this option is to be used, the continuous ampere rating of the service entrance equipment (service panel rating) that is used by the host Customer facility must be stated in the space provided above.
4. The Gross Nameplate Rating of the Generating Facility will not exceed 50% of the host Customer facility's minimum electrical load. If this option is to be used, the minimum load of the host Customer facility must be stated in the space provided above.
5. The Generating Facility utilizes only UL-1741 or UL-1741 SA-listed grid support (non-islanding) inverters and meets other minimum requirements as described in Section Mm of Rule 21 to ensure conditional (inadvertent) export of electric power from the Generation Facility to Distribution Provider's Distribution or Transmission System that is limited in size, duration and cumulative impact.
6. The Generating Facility utilizes only Non-Export AC/DC Converter(s). This protection option is applicable only for agreement options 1 or 5 above (Non-Export).

Note: With the approval of SDG&E, a Producer that wishes to retain the option to export power from a Generating Facility to SDG&E's Distribution System may use a different protection scheme that provides for the detection of faults and other abnormal operating conditions.

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

D. *Parallel Operation Applications Only*	What is the maximum 3-phase fault current that will be contributed by the Generating Facility to a 3-phase fault at the Point of Common Coupling (PCC)? (If the Generating Facility is single phase in design, please provide the contribution for a line-to-line fault.) Please indicate the short circuit interrupting rating of the host Customer facility's service panel:	_____ Amps _____ Amps

Instructions and Notes

Refer to SDG&E's Rule 21 Sections H.4.a. and G.1.f for significance and additional information. To determine this value, any transformers and/or significant lengths of interconnecting conductor used between each of the Generators (if there are more than one) that make up the Generating Facility and the PCC must be taken into account. The details, impedance, and arrangement of such transformers and interconnecting conductors should be shown on the single-line diagram that is provided. Consult an electrical engineer or the equipment supplier if assistance is needed in answering this question.

It is expected that most Applicants will want to reserve the flexibility to operate any or all of their Generators in parallel. If the design of the proposed Generating Facility limits the amount of generation that may be interconnected at any time to SDG&E's Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

E. (MP&I)	Please indicate how this Generating Facility will be operated.	__1 __2 __3 __4 __5 __6 __7 (Please choose all options that may apply.)

Instructions and Notes

Choose from the following operation options:

1. **Combined Heat and Power or Cogeneration** – Where the operation of the Generating Facility will produce thermal energy for a process other than generating electricity.
2. **Peak Shaving/Demand Management** – Where the Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during SDG&E's "peak pricing periods".
3. **Primary Power Source** – Where the Generating Facility will be used as the primary source of electric power and power supplied by SDG&E to the host Customer's loads will be required for supplemental, standby, or backup power purposes only.
4. **Standby / Emergency / Backup** – Where the Generating Facility will normally be operated only when SDG&E's electric service is not available.
5. **Net Energy Metering** – Where the Generating Facility qualifies and receives service under one of SDG&E's Net Energy Metering tariffs.
6. **Multiple Tariff** – Generating Facilities that have a combination of generator(s) eligible for service under one or more of SDG&E's NEM tariffs and/or generator(s) eligible to receive service under other, non-NEM eligible SDG&E tariffs. Check one of the options listed in Part 4.
7. Other, please describe: _____

F. (MP&I)	Please indicate if Qualifying Facility Status will be obtained from the FERC for this Generating Facility.	__Yes __No

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions and Notes
Parties operating Generating Facilities complying with all of the requirements for qualification as either a small power production facility or cogeneration facility pursuant to the regulations of the FERC (18 Code of Federal Regulations Part 292, Section 292.203 et seq.) implementing the Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A. Section 796, et seq.), or any successor requirements for "Qualifying Facilities," may seek certification from FERC to have the Generating Facility designated as a Qualifying Facility or "QF." In summary, QF's are Generating Facilities using renewable or alternative fuels as a primary energy source or facilities that utilize the thermal energy given off by the generation process for some other useful purpose. QF's enjoy certain rights and privileges not available to non-QF Generating Facilities.

QF status is not required to interconnect and operate in parallel with SDG&E's Distribution System.

G.	Please indicate if Generating Facility will meet the annual Efficiency and Operating Standards of PUC Code 216.6 (Applicable to Cogeneration Only)	__Yes __No __N/A

Part 4 – Describe each of the Generators (See Instructions.) Use additional sheets, if necessary.

☐ New facility installing non-NEM generator(s) and NEM generators at the same time.

☐ Existing facility with non-NEM generator(s) and planning to add NEM generator(s). Please provide data for the table below.

☐ Existing facility with NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.

☐ Existing facility with NEM generator(s) and planning to add NEM generator(s) under a different NEM tariff. Please provide data for the table below.

☐ Existing facility with non-NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.

Part 4 Cont'd – Describe each of the Generators (See Instructions.) Use additional sheets, if necessary.

Instructions	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type	Totals For All Generators
#	Please indicate the number of each "type" of Generator being installed: (See instructions)					
A (MP&I)	Gen/Inverter/Converter Manufacturer					
B (MP&I)	Gen/Inverter/Converter Model					
C	Gen/Inverter/Converter Software Version					
D	Is the Generator Certified	__Yes __No	__Yes __No	__Yes __No	__Yes __No	
E (MP)	Generator Design (Choose One)	__ Synchronous __ Induction __ Inverter	__ Synchronous __ Induction __ Inverter	__ Synchronous __ Induction __ Inverter	__ Synchronous __ Induction __ Inverter	
E.1	If the Generator Type is an Inverter, is the Inverter Certified as a Smart Inverter in accordance with Rule 21 Section Hh by a Nationally Recognized Testing Laboratory (NRTL)?	__Yes __No	__Yes __No	__Yes __No		
E.2	If the Generator Type is a Converter, does the Converter meet the NonExport AC/DC Converter requirements of Rule 21 Section H.3.e?	__Yes __No	__Yes __No	__Yes __No		
F (MP&I)	Gross Nameplate Rating (kVA)					
G	Gross Nameplate Rating (kW)					
H	Net Nameplate Rating (kW)					
I	Energy Storage Electrical Source Function (in addition, please complete section H for further description regarding operations)	Max kWH Capacity: ________ Rated kW Charge: ________ Rated kW Discharge: ________ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ________ ________	Max kWH Capacity: ________ Rated kW Charge: ________ Rated kW Discharge: ________ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ________ ________	Max kWH Capacity: ________ Rated kW Charge: ________ Rated kW Discharge: ________ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ________ ________	Max kWH Capacity: ________ Rated kW Charge: ________ Rated kW Discharge: ________ List (if any) Device Used to Limit Discharge (inverter/ Power Control/etc.): ________ ________	

Part 4 Cont'd – Describe each of the Generators (See Instructions.) Use additional sheets, if necessary.

Instr.	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type
J (MP)	Operating Voltage (Volts or kV)				
K	Power Factor Rating (%)	Min. _____ Max. _____		Min. _____ Max. _____	Min. _____ Max. _____
L	PF Adjustment Range (%)				
M(MP)	Wiring Configuration (Choose One)	__Single-Phase __Three-Phase		__Single-Phase __Three-Phase	__Single-Phase __Three-Phase
N (MP)	3-Phase Winding Configuration (Choose One)	__3 Wire Delta __3 Wire Wye __4 Wire Wye	__3 Wire Delta __3 Wire Wye __4 Wire Wye	__3 Wire Delta __3 Wire Wye __4 Wire Wye	__3 Wire Delta __3 Wire Wye __4 Wire Wye
O (MP)	Neutral Grounding System Used (Choose One)	__Ungrounded __Solidly Grounded __Ground Resistor _____ Ohms	__Ungrounded __Solidly Grounded __Ground Resistor _____ Ohms	__Ungrounded __Solidly Grounded __Ground Resistor _____ Ohms	__Ungrounded __Solidly Grounded __Ground Resistor _____ Ohms
P	*For Synchronous Generators Only:* Synchronous Reactance: Transient Reactance: Subtransient Reactance:	_____ (Xd %) _____(X'd %) _____(X"d %)	_____ (Xd %) _____(X'd %) _____(X"d %)	_____ (Xd %) _____(X'd %) _____(X"d %)	_____ (Xd %) _____(X'd %) _____(X"d %)
Q	*For Induction Generators Only:* Locked Rotor Current: *OR* Stator Resistance: Stator Leakage Reactance: Rotor Resistance: Rotor Leakage Reactance:	_____ (Amps) _____(%) _____(%) _____(%) _____(%)	_____ (Amps) _____(%) _____(%) _____(%) _____(%)	_____ (Amps) _____(%) _____(%) _____(%) _____(%)	_____ (Amps) _____(%) _____(%) _____(%) _____(%)
R	Short Circuit Current Produced by Generator:	_____ (Amps)	_____ (Amps)	_____ (Amps)	_____ (Amps)
S	*For Generators that are Started as a "Motor" Only* 1. In-Rush Current: 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating:	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)

Part 4 Cont'd – Describe each of the Generators (See Instructions.) Use additional sheets, if necessary.

Instructions	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type
T (MP&I)	(Circle One)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
U	AC Disconnect	Manufacturer ________ Model# ________ Rating (amps) ________	Manufacturer ________ Model# ________ Rating (amps) ________	Manufacturer ________ Model# ________ Rating (amps) ________	Manufacturer ________ Model# ________ Rating (amps) ________
V	Photovoltaic (PV) Panel	Manufacturer ________ Model# ________ Nameplate Rating (kW/unit) ________ CEC Rating (kW/unit) ________ Quantity of Panels ________ Total Capacity (kW) ________	Manufacturer ________ Model# ________ Nameplate Rating (kW/unit) ________ CEC Rating (kW/unit) ________ Quantity of Panels ________ Total Capacity (kW) ________	Manufacturer ________ Model# ________ Nameplate Rating (kW/unit) ________ CEC Rating (kW/unit) ________ Quantity of Panels ________ Total Capacity (kW) ________	Manufacturer ________ Model# ________ Nameplate Rating (kW/unit) ________ CEC Rating (kW/unit) ________ Quantity of Panels ________ Total Capacity (kW) ________
W	Energy Storage (ES) System	Manufacturer ________ Model# ________ Quantity of Units ________	Manufacturer ________ Model# ________ Quantity of Units ________	Manufacturer ________ Model# ________ Quantity of Units ________	Manufacturer ________ Model# ________ Quantity of Units ________
X	Lineside Tap	__Yes __No	__Yes __No	__Yes __No	

Instructions for Part 4 – Describing the Generators

	Generation Information	Instructions and Comments
#	Please indicate the number of each "type" of Generator being installed:	Please provide the following information for each Generator "type". Be sure all Generators classified as one "type" are identical in all respects. If only one type of Generator is to be used, only one column needs to be completed. Please be sure the information in the "Totals" column is correct and reflects the total number of Generator units to be installed.
A	Generator/Inverter/ Converter Manufacturer	Enter the brand name of the Generator.
B	Generator/Inverter/ Converter Model	Enter the model name or number assigned by the manufacturer of the Generator.
C	Generator/Inverter/ Converter Software Version	If this Generator's control and or protective functions are dependent on a "software" program supplied by the manufacturer of the equipment, please provide the version or release number for the software that will be used.
D	Is the Generator Certified by a Nationally Recognized Testing Laboratory (NRTL) according to Rule 21?	Answer "Yes" only if the Generator manufacturer can or has provided certification data. See SDG&E's Rule 21, Section L for additional information regarding Generator certification.
E	Generator Design	Please indicate the design of each Generator. Designate "Inverter" anytime an inverter is used as the interface between the Generator and the electric system regardless of the primary power production/storage device used.
E.1	If the Generator Type is an Inverter, is the Inverter Certified as a Smart Inverter in accordance with Rule 21 Section Hh by a Nationally Recognized Testing Laboratory (NRTL)?	Answer "Yes" only if the inverter manufacturer can or has provided certification data. See SDG&E's Rule 21, Section Hh for Smart Inverter requirements, and Section L for additional information regarding Generator certification.
E.2	If the Generator Type is a Converter, does the Converter meet the Non-Export AC/DC Converter requirements of Rule 21 Section H.3.e?	Answer "Yes" only if the Converter meets the Non-Export AC/DC Converter requirements of Rule 21, Section H.3.e.

Instructions for Part 4 Cont'd – Describing the Generators

	Generation Information	Instructions and Comments
F	Gross Nameplate Rating (kVA)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator's "nameplate". This value is not required where the manufacturer provides only a "kW" rating. However, where both kVA and kW values are available, please indicate both.
G	Gross Nameplate Rating (kW)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator's "nameplate". This value is not required where the manufacturer provides only a "kVA" rating. However, where both kVA and kW values are available, please indicate both.
H	Net Nameplate Rating (kW)	This capacity value is determined by subtracting the "auxiliary" or "station service" loads used to operate the Generator or Generating Facility. Applicants are not required to supply this value but, if it is not supplied, applicable standby charges may be based on the higher "gross" values.
I	Energy Storage	This is the storage capacity (kWH) and charge and discharge capacity (kW) of the energy storage device. Typically the charge and discharge capacity (kW) is equal to the kW rating of the inverter.
J	Operating Voltage	This value should be the voltage rating designated by the manufacturer and used in this Generating Facility. Please indicate phase-to-phase voltages for 3-phase installations. See SDG&E's Rule 21, Section H.2.b. for additional information.
K	Power Factor Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See SDG&E's Rule 21, Section H.2.i. for additional information.
L	PF Adjustment Range	Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values. See SDG&E's Rule 21, Section H.2.i.
M	Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See SDG&E's Rule 21, Section H.3.
N	3-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.
O	Neutral Grounding	Wye connected generating units are often grounded – either through a resistor or directly, depending upon the nature of the electrical system to which the Generator is connected. If the grounding method used at this facility is not listed, please attach additional descriptive information.
P	For Synchronous Generators Only:	If the Generator is of a "synchronous" design, please provide the synchronous reactance, transient reactance, and subtransient reactance values supplied by the manufacturer. This information is necessary to determine the short circuit contribution of the Generator and as data in load flow and short circuit computer models of SDG&E's Distribution System. If the Generator's Gross Nameplate Capacity is 10 MW or greater, SDG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.

Instructions for Part 4 Cont'd – Describing the Generators

	Generation Information	Instructions and Comments
R	Short Circuit Current Produced by Generator	Please indicate the current each Generator can supply to a three-phase fault across its output terminals. For single phase Generators, please supply the phase-to-phase fault current.
S	*For Generators that are Started as a "Motor" Only:* 1. In-Rush Current 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating	This information is needed only for Generators that are started by "motoring" the generator. See SDG&E's Rule 21, Sections G.1.c and L.3.d for significance and additional information. If this question was answered in Part 3, question C of this Application, it need not be answered here.
T	Prime Mover Type	Please indicate the type and fuel used as the "prime mover" or source of energy for the Generator. 1 = Internal Combustion Engine – Natural Gas 2 = Internal Combustion Engine – Diesel Fueled 3 = Internal Combustion Engine - Other Fuel 4 = Microturbine– Natural Gas 5 = Microturbine – Other Fuel 6 = Combustion Turbine Natural Gas 7 = Combustion Turbine - Other Fuel 8 = Steam Turbine 9 = Photovoltaic Panels 10 = Solar-thermal engine 11 = Fuel Cell– Natural Gas 12 = Fuel Cell– Other Fuel 13 = Hydroelectric Turbine 14 = Wind Turbine 15 = Energy Storage 16 = Other please describe: _____
U	AC Disconnect	For systems requiring an AC Disconnect only, please include the requested information about the AC Disconnect.
V	Photovoltaic (PV) Panel	For PV systems only, please include requested information about the PV panels.
W	Energy Storage (ES) System	Provide the manufacturer name, model number, and quantity of units.
X	Lineside Tap	SDG&E has special requirements for a lineside tap. Contact SDG&E at:DGInquiries@semprautilities.com

Part 5. Information Required for Energy Storage (if applicable)

Energy Storage System Operations

Describe the intended use of the storage device (Example of this can be peak shaving, export to grid, load shifting, etc. The intended use may be taken into account in the study process.):

Energy Storage Charging Function:

Rated Charge Demand (Load):_____ kW

Estimated annual Net Energy Usage* of the ESD:_____ kWh

*Net Energy Usage = (kWh input, including charging, storage device auxiliary loads, and losses) – (kWh output, including discharging)

Will the distribution grid be used to charge the storage device (yes/no): _____.

If no: Provide technical description of control systems including:

Source of energy for charging:_____

Mechanism to prevent charging from the Distribution System:_____

_____

If yes: Will charging the storage system from the grid increase the host facility's current peak load demand (yes/no):_____

- **Yes:** Provide the amount of added peak demand in (kW):_____ kW
- **No:** Provide technical description of charger control systems including charging periods, source of energy (if applicable), and/ or mechanism to prevent increasing the host facility's peak load demand:

  _____

  _____

Generating Facility:

Including all generation sources such as PV, storage, and other technologies, provide the following information:

Will the generating facility export power to the grid (yes/no) :_____.

If yes, specify Generating Facility's maximum coincident export to the grid:_____ kW

If all generation sources are not simultaneously exporting to the grid, provide technical description of the controls systems for this function that prevent simultaneous export:

_____.