



APPLICATION FOR INTERCONNECTION OF DISTRIBUTED GENERATION FACILITY (CUSTOMER-OWNED GENERATION)

Part 1 – Introduction and Overview

- A. Applicability:** This Distributed Generation Facility Interconnection Application (Application) is used to request the interconnection of a Generating Facility to Imperial Irrigation District's (IID) Distribution System (a self-regulated utility). Refer to IID's Regulation 21, Rules for Interconnection of Distributed Generation Facilities (Customer-Owned Generation) [IID's Regulation 21 Rules] 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 IID's Regulation 21 Rules.

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 IID, including "distributed generation", "cogeneration," emergency, backup, and standby generation, and Net Energy Metered Generating Facilities. A simpler, shorter form is also available from IID for Net Energy Metered Generating Facilities with a nameplate rating of less than 10 kW. While Customers operating Generating Facilities isolated from IID's Distribution System are not obligated to enter into an Interconnection Agreement with IID, parts of this Application will still need to be completed to satisfy IID's notice requirements for operating an isolated Generating Facility.

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 which is available from IID.

- B. Rules and Steps for Interconnection:** This Application must be completed and sent to IID along with the additional information indicated in Part 1, Section C, below, to initiate IID's interconnection review of the proposed Generating Facility. An Initial Review fee of \$800 (payable by check or money order to IID) must accompany most Applications except those Applications for isolated Generating Facilities, Solar and Net Energy Metering Generating Facilities. Supplemental Review and Interconnection Study fees may be required for large capacity and/or more complex Generating Facility Interconnections (see IID's Regulation 21 Rules).

This document is only an Application. Upon acceptance, IID will prepare an Interconnection Agreement for execution by the "Producer," the party that will be responsible for the Generating Facility. IID may also require the inspection and testing of the Generating Facility and the installation of 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 IID or regulatory agencies, such as the Air Quality Management Districts and local governmental building and planning commissions prior to operating a Generating Facility. IID's authorization to operate in parallel does not satisfy the need for an Applicant to acquire such other approvals.

- C. Required Documents:** Four (4) copies of this Application and 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" x 17" drawings are preferred. All drawings must be approved by the local jurisdiction and stamped by a Professional Engineer.
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 IID'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 IID'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 **transformers** are used to interconnect the Generating Facility with IID's Distribution System, please provide transformer nameplate information (voltages, capacity, winding arrangements, connections, impedance, etc.).
 4. If a **transfer switch** or scheme is used to interconnect the Generating Facility with IID Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate.
 5. 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.
 6. An Initial Review fee check or money order in the amount of \$800, if applicable, made out to IID referencing the contract account number (Part 2. A.) and "Initial Interconnection Review Fee"
- D. Mailing Instructions and Assistance:** When the Application has been completed, it may be printed and mailed, along with the required attachments to the address below. The offices can be contacted for assistance in completing the Application or to make arrangements to e-mail or fax copies of the required information with payment of the required fees to follow.

IMPERIAL VALLEY
Superintendent, Customer Operations
Imperial Irrigation District
1699 W. Main Street, Suite A
El Centro, CA 92243
Tel: 482-3400
Fax: 482-3401

COACHELLA VALLEY
Superintendent, Customer Operations
Imperial Irrigation District
81-600 Avenue 58
La Quinta, CA 92253
Tel: 391-5952
Fax: 391-5955



**APPLICATION FOR INTERCONNECTION
OF DISTRIBUTED GENERATION FACILITY
(CUSTOMER-OWNED GENERATION)**

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

<i>Project Name:</i>	<i>Date Received:</i>	<i>Generating Facility ID:</i>	<i>Application Expiration Date (Refer to Part 2, Section E)</i>

(For IID Use Only)

A. Customer Contract Account Information (To what electric service will the Generating Facility be connected? Please provide the Customer Contract Account and all associated accounts/meter information.)

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Name shown on IID Contract Account Contract Account No. Meter Number

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

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Street Address City State Zip

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

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Contact Person Company Name

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Phone Fax E-mail

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Mailing Address City State Zip

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

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Project Contact Person (optional) Company Name

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Phone Fax E-mail

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Mailing Address City State Zip

B.1. Will the Generating Facility be owned by a (third) party other than the name appearing on the IID service account in A. above (please check)? _____ Yes _____ No



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Part 2 Cont. – Identifying the Generating Facility’s Location and Responsible Parties

C.1. Customer – Generation Facility Interconnection Agreement (GFIA) Information or the Customer Generation Agreement (CGA) (applicable to third party owner only) (Please identify, if known, the party that will execute the applicable agreement. Not applicable for Net Energy Metering Applicants.

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

Name of Legal Entity to be entered in signatures section of the GFIA/CGA

C.2. 3rd Party Owner – Generation Facility Interconnection Agreement Information (Please identify the 3rd party, if known, that will execute the GFIA). Not applicable for Net Energy Metering Applicants.

Person Executing the GFIA	Title of Person Executing GFIA

Name of Legal Entity to be entered in signatures section of the GFIA

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

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E. Expiration Date* (The date the status of this Application is changed to “withdrawn” by IID.)

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* 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 IID as a “completed” Application. If the project has not received written authorization to operate in parallel, or reasonable proof that the project is going forward has not been submitted to IID by that time, the Application will be considered “withdrawn”. To the extent that the Initial Review, Supplemental Review, or Detailed Interconnection Study fees have been paid to and the corresponding reviews/study completed by IID, Applicant will only be entitled to a return of one-half (\$400) of the Initial Review fee. All other fees will be forfeited.



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Part 3 Cont. – Describing the Generating Facility and Host Customer’s Electrical Facilities

Third Party Owned Generating Facility

4. **A Generating Facility Interconnection Agreement** that provides for parallel operation of the third party owned Generating Facility, but does not provide for exporting power to IID’s Distribution System.
5. **A Generating Facility Interconnection Inadvertent Export Agreement** that provides for parallel operation of the third party owned Generating Facility and the occasional, inadvertent, non-compensated, export of power to IID’s Distribution System.
6. **A Power Purchase Agreement** that provides for parallel operation of the third party owned Generating Facility, and exporting power to IID’s Distribution System for sale to IID. This type of agreement has not yet been developed by IID. Power Purchase Agreements are arranged through IID’s Energy Resources Unit.
7. **Other, please describe:** _____
8. **A Customer Generation Agreement** that defines the relationship between IID and the Customer whose name appears on IID’s Customer Account (this agreement must be executed in addition to 4, 5, or 6.)

NEM Generating Facility

9. **A Net Energy Metering Agreement** that provides for parallel operation of the Generating Facility, and exporting power to IID’s Distribution System for credit under the terms of IID’s Net Metering Rate Schedule. This option is available only to eligible generating facilities as defined in IID’s Net Metering Rate Schedule.
10. **A NEM/Non-NEM Eligible Generating Facility Agreement** that provides for the parallel operation of the Generating Facility that uses generators eligible for service under NEM that are electrically connected behind the same Point of Common Coupling with generators that are not eligible to receive service under the Net Metering Rate Schedule. (This type of agreement has not yet been developed by IID. Check with IID for availability).
11. **Other, please describe:** _____

Note: Agreements 3, 6, 7, 9, and 11 have not yet been developed by IID. Check with IID for availability.

<p><i>C. Parallel Operation Applications Only</i></p>	<p>If the answer to Section B above is agreement option 1 or 4, please indicate the protection option that will be used to prevent energy from being exported to IID’s Distribution System.</p> <p>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).</p> <p>If protection option 4 to this Section C is selected, please provide the minimum load of the host Customer facility.</p>	<p>Protection option:</p> <p style="text-align: center;">_1_2_3_4 (Choose one)</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Amps</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">kW</p>
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Instructions and Notes

Refer to Section I.3.b, screen 2, IID’s Regulation 21 Rules for additional information as to how to answer this question. If the Generating Facility will never export power to IID’s Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and IID’s Distribution System. Choose from the following four 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. Note: Please check with IID before you elect this option. The required relay sensitivity levels are often difficult to achieve.
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.

Note: With the approval of IID, a Producer that wishes to retain the option to export power from a Generating Facility to IID’s



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Distribution System may use a different protection scheme that provides for the detection of faults and other abnormal operating conditions.

Part 3 Cont. – Describing the Generating Facility and Host Customer’s Electrical Facilities

<p>D. <i>Parallel Operation Applications Only</i></p>	<p>What is the maximum three-phase fault current that will be contributed by the Generating Facility to a three-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.)</p> <p>Please indicate the short circuit interrupting rating of the host Customer facility’s service panel:</p>	<p>_____</p> <p>Amps</p> <p>_____</p> <p>Amps</p>
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Instructions and Notes

Refer to Section D.4.a. and Section I.3.g. of IID’s Regulation 21 Rules 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 IID’s Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

<p>E. (MP&I)</p>	<p>Please indicate how this Generating Facility will be operated.</p>	<p>___1___2___3___4___5</p> <p>(please choose all options that may apply)</p>
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Instructions and Notes

Choose from the following five operation options:

1. **Combined Heat and Power or Cogeneration** – The operation of the Generating Facility will produce thermal energy for a process other than generating electricity.
2. **Peak Shaving/Demand Management** – The Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during IID’s “peak pricing periods”.
3. **Primary Power Source** – The Generating Facility will be used as the primary source of electric power and power supplied by IID to the host Customer’s loads will be required for supplemental, standby, or backup power purposes only.
4. **Standby / Emergency / Backup** – The Generating Facility will normally be operated only when IID’s electric service is not available.
5. **Net Energy Metering** – The Generating Facility qualifies and receives service under IID Net Metering Rate Schedule.

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

	Generator Information	Generator Type 1	Generator Type 2	Generator Type 3	Totals for All Generators
#	Please indicate the number of each "type" of Generator (see instructions)				
A (MP&I)	Generator/Inverter Manufacturer (Name)				
B (MP&I)	Generator/Inverter Model (Name/Number)				
C	Generator/Inverter Software Version (Number)				
D	Is the Generator Certified by a Nationally Recognized Testing Laboratory (NRTL) according to IID's Regulation 21 Rules?	___Yes ___No	___Yes ___No	___Yes ___No	
E (MP)	Generator Type (choose one)	___Synchronous ___Induction ___Inverter	___Synchronous ___Induction ___Inverter	___Synchronous ___Induction ___Inverter	
F (MP&I)	Gross Nameplate Rating (kVA)				
G	Gross Nameplate Rating (kW)				
H	Net Nameplate Rating (kW)				
I (MP)	Operating Voltage (volts or kV)				
J	Power Factor Rating (%)				
K	PF Adjustment Range (%)	_____ Min. _____ Max.	_____ Min. _____ Max.	_____ Min. _____ Max.	
L (MP)	Wiring Configuration (choose one)	___Single-Phase ___Three-Phase	___Single-Phase ___Three-Phase	___Single-Phase ___Three-Phase	



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

	Generator Information	Generator Type 1	Generator Type 2	Generator Type 3
M (MP)	Three-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
N (NP)	Neutral Grounding System Used (Choose One)	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms
O	<i>For Synchronous Generators Only:</i> Synchronous Reactance: _____ (Xd %) Transient Reactance: _____ (X'd %) Subtransient Reactance: _____ (X''d %)			
P	<i>For Induction Generators Only:</i> Locked Rotor Current: _____ (Amps) OR Stator Resistance: _____ (%) Stator Leakage Reactance: _____ (%) Rotor Resistance: _____ (%) Rotor Leakage Reactance: _____ (%)			
Q	Short Circuit Current Produced by Generator:	_____ (Amps)	_____ (Amps)	_____ (Amps)
R	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)
S (MP&I)	Prime Mover Type: (Circle One)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



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Instructions for Part 4 – Describing the Generators

	Generator 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 Manufacturer	Enter the brand name of the Generator.
B	Generator/Inverter Model	Enter the model name or number assigned by the manufacturer of the Generator.
C	Generator/Inverter 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 IID’s Regulation 21 Rules?	Answer “Yes” only if the Generator manufacturer can or has provided certification data. See IID’s Regulation 21 Rules, Section J, for additional information regarding Generator certification.
E	Generator Design	Please indicate the designated type 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.
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.



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Instructions for Part 4 Cont. – Describing the Generators

	Generator Information	Instructions and Comments
I	Operating Voltage (volts or kV)	This value should be the voltage rating designated by the manufacturer and used in this Generating Facility. Please indicate phase-to-phase voltages for three-phase installations. See IID Regulation 21 Rules, Section D.2.b. for additional information.
J	Power Factor Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See IID's Regulation 21, Rules, Section D.2.i. for additional information.
K	PF Adjustment Range	If the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values. See IID's Regulation 21 Rules, Section D.2.i.
L	Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See IID's Regulation 21 Rules, Section D.3.
M	Three-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator's windings or inverter systems.
N	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.
O	<i>For Synchronous Generators Only:</i>	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 IID's Distribution System. If the Generator's Gross Nameplate Capacity is 10 MW or greater, IID may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
P	<i>For Induction Generators Only:</i>	If the Generator is of an "induction" design, please provide the "locked rotor current" value supplied by the manufacturer. If this value is not available, the stator resistance, stator leakage reactance, rotor resistance, rotor leakage reactance values supplied by the manufacturer may be used to determine the locked rotor current. If the Generator's Gross Nameplate Capacity is 10 MW or greater, IID may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
Q	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.



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Instructions for Part 4 (Cont.) – Describing the Generators

	Generator Information	Instructions and Comments
R	<p><i>For Generators that are Started as a "Motor" Only:</i></p> <ol style="list-style-type: none"> 1. In-Rush Current 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating 	<p>This information is needed only for Generators that are started by "motoring" the generator.</p> <p>See IID's Regulation 21 Rules, Section I.3.e. for significance and additional information.</p> <p>If this question was answered in Part 3, question C of this Application, it need not be answered here.</p>
S	<p>Prime Mover Type</p>	<p>Please indicate the type and fuel used as the "prime mover" or source of energy for the Generator.</p> <ol style="list-style-type: none"> 1 = Internal Combustion Engine – Natural Gas Fueled 2 = Internal Combustion Engine – Diesel Fueled 3 = Internal Combustion Engine - Other Fuel 4 = Microturbine– Natural Gas Fueled 5 = Microturbine – Other Fuel 6 = Combustion Turbine Natural Gas Fueled 7 = Combustion Turbine - Other Fuel 8 = Steam Turbine 9 = Photovoltaic Panels 10 = Solar-Thermal Engine 11 = Fuel Cell– Natural Gas Fueled 12 = Fuel Cell– Other Fuel 13 = Hydroelectric Turbine 14 = Wind Turbine 15 = Other (please describe)

DISPUTE RESOLUTION. Should a legal dispute, claim or controversy arise between the applicant and IID relating to, arising out of, or concerning this Application (the "Dispute"), then the applicant may not initiate any legal claim or action against IID with respect to any such Dispute until the applicant has first complied with Section G of IID's Rules for Interconnection of Distributed Generation Facilities. Applicant agrees that if applicant fails to comply with the requirements of Section G of IID's Rules for Interconnection of Distributed Generation Facilities, applicant will be deemed to have waived any and all rights with respect to said legal controversy, claim or action against IID concerning or relating to any associated Dispute.

Applicant's Signature: _____

Name (print): _____

Date: _____