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PACIFIC POWER & LIGHT COMPANY

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First Revision of Sheet No. 136.1
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Schedule 136
INTERCONNECTION TARIFF

AVAILABLE:

In all territory served by Company in Washington.

APPLICABLE:

To any Customer that owns or operates a generating facility interconnected or requested to be interconnected with, and operate in parallel with Company's electric system, including without limitation net-metered facilities, with a capacity no more than 20 megawatts. This Schedule does not apply to interconnections or requests for interconnection that are subject to the jurisdiction of the Federal Energy Regulatory Commission. This Schedule does not apply to interconnection of, or electrical company services to, PURPA qualifying facilities pursuant to chapter 480-107 WAC. This Schedule does not apply to standby generators designed and used only to provide power to the customer when the local electric distribution company service is interrupted and that operate in parallel with the electric distribution company for less than 0.5 seconds both to and from emergency service. This Schedule does not govern the settlement, purchase or delivery of any power generated by an interconnection customer's net-metered or production-metered generating facility. This Schedule is offered in compliance with WAC 480-108-001 through WAC 480-108-999 (http://apps.leg.wa.gov/wac/default.aspx?cite=480) (C)

DEFINITIONS: (D)(N)

"Application" means the written notice as defined in WAC 480-108-030 that the interconnection customer provides to the electrical company to start the interconnection process.

"Business day" means Monday through Friday excluding official federal and state holidays.

"Certificate of completion" means the form described in WAC 480-108-050(2) that must be completed by the interconnection customer's electrical inspector and approved by the electrical company indicating completion of installation and inspection of the interconnection.

"Commission" means the Washington utilities and transportation commission.

"Electric system" means all electrical wires, equipment, and other facilities owned by the electrical company used to transmit electricity to customers.

"Electrical company" means any public service company, as defined by RCW 80.04.010, engaged in the generation, distribution, sale or furnishing of electricity and subject to the jurisdiction of the commission.

"Generating facility" means a source of electricity owned, or whose electrical output is owned, by the interconnection customer that is located on the interconnection customer's side of the point of common coupling, and all ancillary and appurtenant facilities, including interconnection facilities, which the interconnection customer requests to interconnect to the electric system.

"Initial operation" means the first time the generating facility operates in parallel with the electric system.

"Interconnection" means the physical connection of a generating facility to the electric system so that parallel operation may occur.

"Interconnection agreement" means an agreement between an electrical company and the interconnection customer which outlines the interconnection requirements, costs and billing agreements, insurance requirements, and ongoing inspection, maintenance, and operational requirements.

"Interconnection customer" means the person, corporation, partnership, government agency, or other entity that proposes to interconnect, or has executed an interconnection agreement with the electrical company. The interconnection customer must:

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Schedule 136
INTERCONNECTION TARIFF

DEFINITIONS: (continued) (D)(N)

"Interconnection customer" (continued):

(a) own a generating facility interconnected to the electric system,

(b) be a customer-generator of net-metered facilities, as defined in RCW 80.60.010(2), or

(c) otherwise be authorized to interconnect by law.

The interconnection customer is responsible for the generating facility, and may assign to another party responsibility for compliance with the requirements of this rule only with the express written permission of the electrical company. A net metered interconnection customer may lease a generating facility from, or purchase power from, a third-party owner of an on-site generating facility.

"Interconnection facilities" means the electrical wires, switches and other equipment owned by the electrical company or the interconnection customer and used to interconnect a generating facility to the electric system. Interconnection facilities are located between the generating facility and the point of common coupling. Interconnection facilities do not include system upgrades.

"Islanding" means the condition that occurs when power from the electric system is no longer present and the generating facility continues exporting energy onto the electric system.

"Minor modification" means a physical modification to the electric system with a cost of no more than ten thousand dollars.

"Nameplate capacity" means the manufacturer's output capacity of the generating facility. For a system that uses an inverter to change DC energy supplied to an AC quantity, the nameplate capacity will be the manufacturer's AC output rating for the inverter(s). Nameplate capacities shall be measured in the unit of kilowatts.

"Net metering" as defined in RCW 80.60.010, means measuring the difference between the electricity supplied by an electrical company and the electricity generated by a generating facility that is fed back to the electrical company over the applicable billing period.

"Network protectors" means devices installed on a network distribution system designed to detect and interrupt reverse current-flow (flow out of the network) as quickly as possible, typically within three to six cycles.

"Parallel operation" or **"operate in parallel"** means the synchronous operation of a generating facility while interconnected with an electric system.

"Point of common coupling" means the point where the generating facility's local electric power system connects to the electric system, such as the electric power revenue meter or at the location of the equipment designated to interrupt, separate or disconnect the connection between the generating facility and electrical company. The point of common coupling is the point of measurement for the application of Institute of Electrical and Electronics Engineers standard (IEEE) 1547.

"System upgrades" means the additions, modifications and upgrades to the electric system at or beyond the point of common coupling necessary to interconnect the generating facility. System upgrades do not include interconnection facilities.

"Third-party owner" means an entity that owns a generating facility located on the premises of an interconnection customer and has entered into a contract with the interconnection customer for provision of power from the generating facility. When a third-party owns a net-metered generating facility, the interconnection customer maintains the net metering relationship with the electrical company. The electrical company shall not allow a third-party owner to resell the electricity produced from a net metered generating facility.

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Schedule 136
INTERCONNECTION TARIFF

SPECIAL CONDITIONS:

A. Applicability

1. Tier 1. Interconnection of a generating facility will use Tier 1 processes and technical requirements if the proposed generating facility meets all of the following criteria:

a) Uses inverter-based interconnection equipment;
b) Is single phase;
c) Has a nameplate capacity of 25 kW or less;
d) Is proposed for interconnection at secondary voltages (600 V class);
e) Requires no construction or upgrades to Company facilities, other than meter changes;
f) The aggregated generating capacity on the service wire does not exceed the service wire capability;
g) The aggregated generating capacity on the transformer secondary does not exceed the nameplate on the transformer;
h) If proposed to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 5 kVA; and
i) The aggregated nameplate capacity of all generating facilities on any line section does not exceed fifteen percent of the line section annual peak load as most recently measured or calculated for that line section, or fifteen percent of the circuit annual peak load as most recently measured or calculated for the circuit. For the purposes of the subsection:

(i) "All generating facilities" means all interconnected generating facilities, the proposed generating facility, and all other proposed generating facilities already in the queue defined in WAC 480-108-030(7); and

(ii) "Line section" means that portion of an electric system connected to the generating facility and bounded by sectionalizing devices or the end of the distribution line.

2. Tier 2. Interconnection of a generating facility will use Tier 2 processes and technical requirements if the proposed generating facility meets all of the following criteria:

a) It does not qualify for Tier 1 interconnection applicability requirements;
b) Has a nameplate capacity of 500 kW or less;
c) Is proposed for interconnection to an electric system distribution facility operated at or below 38 kV class;
d) Is not a synchronous generator;
e) If it is proposed to be interconnected on a shared secondary, the aggregate generating capacity on the shared secondary, including the proposed generating facility, must not exceed the lesser of the service wire capability or the nameplate of the transformer;
f) The aggregated nameplate capacity of all generating facilities on any line section does not exceed fifteen percent of the line section annual peak load as most recently measured or calculated for that line section, or fifteen percent of the circuit annual peak load as most recently measured or calculated for the circuit. For the purposes of the subsection:

(i) "All generating facilities" means all interconnected generating facilities, the proposed generating facility, and all other proposed generating facilities already in the queue defined in WAC 480-108-030(7); and

(ii) "Line section" means that portion of an electric system connected to the generating facility and bounded by sectionalizing devices or the end of the distribution line.

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Schedule 136
INTERCONNECTION TARIFF

A. Applicability: (continued)

2. Tier 2. (continued)

g) Any upgrades required to the electric system must fall within the requirements in section (B)(2)(b) of this section;

h) For interconnection of a proposed generating facility to the load side of the spot network protectors, the proposed generating facility must utilize an inverter. The aggregate nameplate capacity of all inverter-based systems must not exceed the smaller of five percent of a spot network's maximum load or 50 kW;

i) The aggregated nameplate capacity of existing and proposed generating facilities must not contribute more than ten percent of the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of interconnection; and

j) The generating facility's point of interconnection must not be on a circuit where the available short circuit current, with or without the proposed generating facility, exceeds 87.5 percent of the interrupting capability of the Company's protective devices and equipment (including substation breakers, fuse cutouts, and line reclosers).

3. Tier 3. Interconnection of a generating facility will use Tier 3 processes and technical requirements if the proposed generating facility does not qualify for Tier 1 or Tier 2.

B. Technical Requirements:

1. Tier 1

a) The purpose of the protection required for Tier 1 generating facilities is to prevent islanding and to ensure that inverter output is disconnected when the electric system is deenergized;

b) An interrupting device must be provided which is capable of safely interrupting the maximum available fault current (typically the maximum fault current is that supplied by the Company);

c) The generating facility must operate within the voltage and power factor ranges specified by the Company and as allowed by Underwriters Laboratories standard (UL) 1741;

d) Disconnect Switch:

(i) Interconnection customers installing and operating an inverter-based UL 1741 certified system interconnected through a self-contained socket-based meter of 320 amps or less are not required to install a visible, lockable AC disconnect switch. Except as provided in subsections ii, iii, and iv of this subsection, all other generating facilities must include a visible, lockable AC disconnect switch. The Company shall have the right to disconnect the generating facility at a UL listed disconnect switch to meet Company operating and safety requirements;

(ii) The Company may waive the visible, lockable disconnect switch requirement for an inverter-based system.

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Schedule 136
INTERCONNECTION TARIFF

B. Technical Requirements: (continued)

1. Tier 1 (continued)

d) Disconnect Switch (continued)

(iii) To maintain Company operating and personnel safety in the absence of an external disconnect switch, the interconnection customer shall agree that the company has the right to disconnect electric service through other means if the generating facility must be physically disconnected for any reason, without liability to the Company. These actions to disconnect the generating facility (due to an emergency or maintenance or other condition on the electric system) will result in loss of electrical service to the customer's facility or residence for the duration of time that work is actively in progress. The duration of outage may be longer than it would otherwise have been with an AC disconnect switch;

(iv) In the absence of an external disconnect switch, the interconnection customer is required to operate and maintain the inverter in accordance with the manufacturer's guidelines, and retain documentation of commissioning. In the absence of such documentation the Company may, with 5 days' notice and at the interconnection customer's expense, test or cause to be tested the inverter to ensure its continued operation and protection capability. The person that tests the inverter shall provide documentation of the results to both the Company and the interconnection customer. Should the inverter fail the test, the Company may disconnect the generating facility, and require the interconnection customer to repair or replace the inverter. The cost of any such repair or replacement required by the Company shall be the sole responsibility of the interconnection customer.

2. Tier 2:

a) In all cases, the interconnection facilities must isolate the generating facility from the electric system as specified by IEEE 1547, and the interconnection agreement. The interconnection customer shall prevent its generating facility equipment from automatically reenergizing the electric system as specified by IEEE 1547, and the interconnection agreement. For inverter–based systems the interconnecting facility must comply with IEEE 1547, UL 1741 and the interconnection agreement set forth by the electric utility. For noninverter based systems a separate protection package will be required to meet IEEE1547 and the interconnection agreement set forth by the Company.

b) If the generating facility fails to meet the characteristics for Tier 2 applicability, but the Company determines that the generating facility could be interconnected safely if minor modifications to the transmission or distribution system were made (for example, changing meters, fuses, or relay settings), then the Company may offer the customer a good-faith, non-binding estimate of the costs of such proposed minor modifications. If the interconnection customer authorizes the Company to proceed with the minor modifications, then the Company may approve the application using Tier 2 processes and technical requirements;

c) For proposed generating facilities 50 kW and greater, three-phase connection may be required by the Company;

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Schedule 136
INTERCONNECTION TARIFF

B. Technical Requirements: (continued)

2. Tier 2 (continued)

d) For three-phase induction generator interconnections, the Company may, in its sole discretion, specify that ground fault protection must be provided. Use of ground overvoltage or ground overcurrent elements may be specified, depending on whether the Company uses three-wire or effectively grounded four-wire systems;

e) If the generating facility is single-phase and interconnected on a center tap neutral of a 240 volt service, it must not create an imbalance between the two sides of the 240 volt service of more than 5 kW;

f) If the generating facility is proposed for interconnection at primary (greater than 600 v class) distribution voltages, the connection of the transformer(s) used to connect the generating facility to the electric system must be the Company's standard connection. This is intended to limit the potential for creating overvoltages on the electric system for a loss of ground during the operating time of functions designed to prevent islanding;

g) For primary-voltage connections to three-phase, three wire systems, the transformer primary windings must be connected phase to phase;

h) For primary-voltage connections to three-phase, four-wire systems the transformer primary windings may be connected phase to neutral; and

i) Disconnect Switch:

(i) Except as provided in subsections ii, iii, and iv of this subsection, the generating facility must include a visible, lockable AC disconnect switch. The Company shall have the right to disconnect the generating facility at a UL listed disconnect switch to meet Company operating and safety requirements;

(ii) The Company may waive the visible, lockable disconnect switch requirement for an inverter-based system;

(iii) To maintain Company operating and personnel safety in the absence of an external disconnect switch, the interconnection customer shall agree that the company has the right to disconnect electric service through other means if the generating facility must be physically disconnected for any reason, without liability to the Company. These actions to disconnect the generating facility (due to an emergency or maintenance or other condition on the electric system) will result in loss of electrical service to the customer's facility or residence for the duration of time that work is actively in progress. The duration of outage may be longer than it would otherwise have been with an AC disconnect switch;

(iv) In the absence of an external disconnect switch, the interconnection customer is required to operate and maintain the inverter in accordance with the manufacturer's guidelines, and retain documentation of commissioning. In the absence of such documentation the Company may, with 5 days' notice and at the interconnection customer's expense, test or cause to be tested the inverter to ensure its continued operation and protection capability. The person that tests the inverter shall provide documentation of the results to both the Company and the interconnection customer.

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Schedule 136
INTERCONNECTION TARIFF

B. Technical Requirements: (continued)

2. Tier 2 (continued)

(iv) (continued)

Should the inverter fail the test, the Company may disconnect the generating facility, and require the interconnection customer to repair or replace the inverter. The cost of any such repair or replacement required by the Company shall be the sole responsibility of the interconnection customer.

3. Tier 3

a) In all cases, the interconnection facilities must isolate the generating facility from the electric system as specified by IEEE 1547, and the interconnection agreement. The interconnection customer shall prevent its generating facility equipment from automatically reenergizing the electric system as specified by IEEE 1547, and the interconnection agreement. For inverter–based systems the interconnecting facility must comply with IEEE 1547, UL 1741 and the interconnection agreement set forth by the electric utility. For noninverter based systems a separate protection package will be required to meet IEEE1547 and the interconnection agreement set forth by the Company;

b) The system must be designed to prevent a single point of failure from causing a loss of protective functions. This can be achieved by installing multiple discrete-function relays providing the required functions as a set, or by installing redundant multifunction devices, each of which provides all of the required functions;

c) Ground fault protection must be provided, unless waived by the utility in writing. Use of ground overvoltage or ground overcurrent elements may be specified, depending on whether the utility uses three-wire or effectively grounded four-wire systems;

d) Breaker failure detection must be provided, and secondary action initiated in the event that the interconnection breaker fails to clear for the trip condition, consistent with utility practice. This may require installation of dual generator breakers tripped by similar interconnection relays, or a main and backup relay with the same functions and zones of protection, one of which trips the generator breaker and one which trips the main incoming breaker;

e) System Impact Studies. The Company may require a feasibility, system impact, facilities, or other study as described in WAC 480-108-030(10)(c). These studies are intended to quantify the impacts of the generating facility on the electric system, and may include analysis of power flow, stability, metering, relay/protection, and communications/telemetry. Acceptance of the results of these studies by the interconnection customer is a condition of approval of the application because the studies provide the basis for the detailed technical requirements for interconnection.

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Schedule 136
INTERCONNECTION TARIFF

C. Applications:

a) **Standard application.** Each customer seeking to interconnect a generating facility must fill out and submit an application. The application must be accurate and complete and contain the signature of the interconnection customer. The Company has filed a standard interconnection application with the Commission, which is available on the Company's website at www.pacificpower.net/env/nmcg/washington_renewableenergyprogram.html or by contacting the Company;

b) **Information Requests.** The Company will comply with reasonable requests for information including relevant system studies, interconnection studies, and other materials useful for a potential interconnection customer to understand the circumstances of an interconnection at a particular point on the electric system, to the extent provision of such information does not violate confidentiality provisions of prior Company agreements;

c) **Phased Installation.** When a project is designed for phased installation, the potential interconnection customer may choose to submit an application for approval of the final project size, or may choose to submit applications at each phase of the project. Each application will be evaluated based on the nameplate capacity stated on the application. If separate applications are submitted for each phase of a project, a separate application fee is required for each phase of the project:

(i) If the potential interconnection customer applies with a final phased in project size and the Company approves the application, then the potential interconnection customer must notify the Company as additional units are added.

(ii) If a potential interconnection customer submits an application for an individual phase of a project, the potential interconnection customer may not develop the project beyond the size approved.

d) **Application Fees.** The interconnection customer must pay a nonrefundable application fee at the time they submit the application. If an application is withdrawn, the application fee shall be applied to a request for reapplication submitted within thirty business days of the withdrawal. The fee will be:

(i)	Facilities 0 - 25 kW:	$ 100.00
(ii)	Facilities 26 – 500 kW:	$ 500.00
(iii)	Facilities 501 kW – 20 MW:	$1,000.00

e) **Nondiscriminatory processing and evaluation.** All generating facility interconnection applications will be processed and evaluated by the Company in a nondiscriminatory manner, consistent with other service requests and in a manner that does not delay other service requests. The Company will document the date and time that all complete interconnection applications are received.

f) **Timelines.** The timeline for the application review process begins when the interconnection application and the application fees are received. A project enters the queue on the date the Company sends a notice of complete application to the interconnection customer, as described in this section. The Company may send any notice described in this section by electronic mail.

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Schedule 136
INTERCONNECTION TARIFF

C. Applications: (continued)

1. Tier 1 Application Timeline.

a) **Notice of receipt.** Notice of receipt of an application and application fee shall be sent by the Company to the interconnection customer within five business days;

b) **Notice of complete application**
   (i) The Company shall notify the interconnection customer if the application is complete or incomplete, and if incomplete specifying any deficiencies, within ten business days after the notice of the receipt of application; and
   (ii) When the Company sends a notice of incomplete application to an interconnection customer, the interconnection customer shall provide a complete application to the Company within fifteen business days of the notice. If the interconnection customer fails to complete the application, the application expires at the end of the incomplete application period.

c) **Approval or denial.** Within twenty business days after a complete application notice is sent to an interconnection customer, the Company shall approve, approve with conditions, or deny the application with written justification. The Company shall include, in the same package as the notice of approval, an executable interconnection agreement and any other information likely to expedite the remainder of the interconnection process. If delays result from unforeseen circumstances, customer variance requests, or other incentive program approval requirements, the customer shall be promptly notified; and

d) **Initial Operation.** An interconnection customer must interconnect and operate the generating facility within one year from the date of approval of the application, or the application expires, unless the Company, in its sole discretion, grants an extension in writing.

2. Tier 2 Application Timeline.

a) **Notice of receipt.** Notice of receipt of an application and application fee shall be sent by the Company to the interconnection customer within five business days;

b) **Notice of complete application**
   (i) The Company shall notify the interconnection customer if the application is complete or incomplete, and if incomplete specifying any deficiencies, within ten business days after the notice of the receipt of application; and
   (ii) When the Company sends a notice of incomplete application to an interconnection customer, the interconnection customer shall provide a complete application to the Company within fifteen business days of the notice. The Company may, but is not required to, grant an extension in writing. If the interconnection customer fails to complete the application, the application expires at the end of the incomplete application period.

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Schedule 136
INTERCONNECTION TARIFF

C. Applications: (continued)

2. Tier 2 Application Timeline (continued)

c) **Approval or denial.** Within thirty business days after a complete application notice is sent to an interconnection customer, the Company shall approve, approve with conditions, or deny the application with written justification. If delays result from unforeseen circumstances, customer variance requests, or other incentive program approval requirements, the customer shall be promptly notified;

d) **Offer of Agreement.** The Company must offer the interconnection customer an executable interconnection agreement within five business days of the notification of approval described in (c) of this subsection.

e) **Initial Operation.** An interconnection customer must interconnect and operate the generating facility within one year from the date of approval of the application, or the application expires, unless the Company, in its sole discretion, grants an extension in writing.

3. Tier 3 Application Timeline

a) **Notice of receipt.** Notice of receipt of an application and application fee shall be sent by the Company to the interconnection customer within five business days.

b) **Notice of complete application**

(i) The Company shall notify the interconnection customer if the application is complete or incomplete, and if incomplete specifying any deficiencies, within ten business days after the notice of the receipt of application; and

(ii) When the Company sends a notice of incomplete application to an interconnection customer, the interconnection customer shall provide a complete application to the Company within thirty business days of the notice. The Company may, but is not required to, grant an extension in writing. If the interconnection customer fails to complete the application, the application expires at the end of the incomplete application period.

c) **Technical review and additional studies.**

(i) **Technical review.** Once an application is accepted by the Company as complete, the Company will review the application to determine if the interconnection request complies with the technical standards established in WAC 480-108-020 and to determine whether any additional engineering, safety, reliability, or other studies are required. If the Company determines that additional studies are required, the Company must provide the interconnection customer a form of agreement that includes a description of what studies are required and a good faith estimate of the cost and time necessary to perform the studies. The Company must notify the interconnection customer of the result of these determinations within thirty business days of when the application is deemed complete, as described in subsection (b) of this section. The interconnection customer may request that these studies be combined.

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INTERCONNECTION TARIFF

C. Applications: (continued)

3. Tier 3 Application Timeline

c) **Technical review and additional studies.** (continued)

(ii) **Approval with no additional studies.** If the Company notifies the interconnection customer that the request complies with the technical requirements established in WAC 480-108-020 and no additional studies are required to determine the feasibility of the interconnection, the Company must offer the interconnection customer an executable interconnection agreement within five business days of such notification. The Company also will provide any additional interim agreements, such as construction agreements, that may be necessary and a good faith estimate of the cost and the time necessary to complete the interconnection.

(iii) **Cost of additional studies and upgrades.**

- **Cost Allocation.** The interconnection customer is responsible for all reasonable costs incurred by the Company to study the proposed interconnection and to design and construct any required interconnection facilities and or system upgrades. The interconnection customer is responsible for reasonable ongoing operation and maintenance costs for facilities added to the electric system that are dedicated to that interconnection customer's use.

- **Cost Disputes.** Within thirty business days after receiving a notice that additional studies are required, as described in (c)(i) of this subsection, the interconnection customer may supply an alternative cost estimate from a third-party qualified to perform the studies required by the Company.

- **Study agreement and deposit.** After the Company and the interconnection customer agree on the estimated cost of the required studies and the identity of parties to perform the required studies, the interconnection customer and Company must execute an agreement describing these studies and any deposit to be paid to the Company. The deposit is not to exceed the lower of one thousand dollars or fifty percent of the estimated study costs. After a study agreement is executed, the Company shall make its best effort to complete the required studies, consistent with time requirements for the studies and other service requests of a similar magnitude.

- **Denial after additional studies.** The Company will provide the interconnection customer with the results of the studies conducted under the subsection. If the studies determine that the interconnection is not feasible, the Company will provide notice of denial to interconnection customer and the reasons for denial.

- **Modification after additional studies.** Based on the results of the studies, the Company and interconnection customer may agree to modify the previously complete application without penalty to the interconnection customer. A modified application shall be considered an approved final application.

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Issued: December 12, 2013 **Effective:** January 1, 2014
Advice No. 13-09

Issued by Pacific Power & Light Company

By: William R. Griffith **Title:** Vice President, Regulation

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Schedule 136
INTERCONNECTION TARIFF

C. Applications (continued)

3. Tier 3 Application Timeline

c) Technical review and additional studies. (continued)

(iii) **Cost of additional studies and upgrades.** (continued)

- **Approval after additional studies.** If the studies determine that the interconnection is feasible, the Company will notify the interconnection customer and provide an executable interconnection agreement to the interconnection customer within five business days of such notification if no system upgrades are required, or fifteen business days if system upgrades are required. The Company also will provide any additional interim agreements, such as construction agreements, that may be necessary and a good faith estimate of the cost and time necessary to complete the interconnection.

- An interconnection customer's failure to execute and return completed agreements and required deposits within the time frames specified in this section or by the Company may result in termination of the application process by the Company under terms and conditions stated in the agreements.

(iv) Other than modifications to the complete application described in (3)(iii)(Modification after additional studies) of this subsection, changes by the interconnection customer to a previously approved completed application will be considered a new application and shall be accompanied by a new application fee. Denied applications expire on the date of denial.

(v) An interconnection customer must execute an interconnection agreement, and simultaneously pay any deposit required by the Company not to exceed fifty percent of the estimated costs to complete the interconnection, within thirty business days from the date of approval of the final application. At the Company's discretion, an extension may be granted in writing. If the Company must upgrade or construct new electric system facilities, the interconnection customer must meet the credit requirements of the Company prior to the start of construction.

(vi) **Initial Operation.** An interconnection customer must begin operation of the generating facility within two years of the effective date of the interconnection agreement, or both the application and subsequent interconnection agreement expire. At the Company's discretion, an extension may be granted in writing.

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Schedule 136
INTERCONNECTION TARIFF

D. General Conditions:

a) The terms, conditions, and technical requirements in this section apply to the interconnection customer and generating facility throughout the generating facility's installation, testing, commissioning, operation, maintenance, decommissioning and removal. The Company may verify compliance at any time, with reasonable notice.

b) Any generating facility proposing to be interconnected with the electric system or any proposed change to a generating facility that requires modification of an existing interconnection agreement must meet all applicable terms, conditions, and technical requirements set forth in this section, including the regulations and standards adopted by reference in WAC 480-108-999.

c) The terms, conditions, and technical requirements in this section are intended to mitigate possible adverse impacts caused by the generating facility on the Company's equipment and personnel and on other customers of the Company. They are not intended to address protection of the generating facility itself, generating facility personnel, or its internal load. It is the responsibility of the generating facility to comply with the requirements of all appropriate standards, codes, statutes, and authorities to protect its own facilities, personnel, and load.

d) The interconnection customer shall comply with and must ensure its generating facility meets the requirements in (i), (ii), and (iii) of this subsection. However, at its sole discretion, the Company may approve, in writing, alternatives that satisfy the intent of, or waive compliance with, any specific elements of these requirements except local, state and federal building codes.
   (i) **Codes and Standards.** These include the National Electric Code (NEC), National Electric Safety Code (NESC), the Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI), and Underwriters Laboratories (UL) standards, and local, state, and federal building codes. The interconnection customer shall be responsible for obtaining all applicable permit(s) for the equipment installations on its property.
   (ii) **Safety.** All safety and operating procedures for joint use equipment shall be in compliance with the Occupational Safety and Health Administration (OSHA) standard at 29 C.F.R. 1910.269, the NEC, Washington Administrative Code (WAC) rules, the Washington division of occupational safety and health (DOSH) standard, and equipment manufacturer's safety and operating manuals.
   (iii) **Power Quality.** Installations will be in compliance with all applicable standards including IEEE standard 519 Harmonic Limits, or more stringent harmonic requirements of the Company that have been approved by the Commission.

e) Any electrical generating facility must comply with this section to be eligible to interconnect and operate in parallel with the electric system. These specifications and standards shall apply to all interconnecting generating facilities that are intended to operate in parallel with the electric system regardless of whether the interconnection customer intends to generate energy to serve all or a part of the interconnection customer's load; or to sell the output to the Company or any third party purchaser.

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INTERCONNECTION TARIFF

D. General Conditions: (continued)

f) In order to ensure system safety and reliability of interconnected operations, all interconnected generating facilities shall be constructed, operated, and maintained by the interconnection customer in accordance with this tariff, with the interconnection agreement, with the applicable manufacturer's recommended maintenance schedule and operating requirements, good electric company practice, and all other applicable federal, state, and local laws and regulations.

g) This tariff does not govern the settlement, purchase, sale, transmission or delivery of any power generated by the interconnection customer's generating facility. The purchase, sale or delivery of power, including net metered electricity pursuant to chapter 80.60 RCW, and other services that the interconnection customer may require will be covered by separate agreement or pursuant to the terms, conditions and rates as may be from time to time approved by the Commission. Separate agreements may be required with the Company, the balancing area authority or transmission provider, or other party but not necessarily with the Company. Any such agreement shall be complete prior to initial operation.

h) An interconnection customer shall promptly furnish the Company with copies of such plans, specifications, records, and other information relating to the generating facility or ownership, operation, use, or maintenance of the generating facility, as may be reasonably requested by the Company from time to time.

i) Disconnection.

(i) Company's right to disconnect.

(1) The Company may disconnect a generating facility as described in this subsection. The Company shall provide reasonable advance notice to an interconnection customer before any scheduled disconnection, or reasonable notice after an unscheduled disconnection.

(2) **Unapproved interconnection.** For the purposes of public and working personnel safety, any unapproved generating facility will be immediately disconnected from the electric system. Such disconnection of unapproved interconnections may result in disconnection of electric service to customers of the Company other than the owner of the generating facility.

(3) **Unapproved operation.** If a generating facility does not operate in a manner consistent with this tariff, the Company may disconnect the generating facility.

(4) **Temporary disconnection.** To maintain the Company's operating and personnel safety the Company has the right to temporarily disconnect electric service to the interconnection customer if the generating facility must be physically disconnected for any reason. The disconnection of the generating facility (due to an emergency or maintenance or other condition on the electric system) will result in loss of electrical service to the customer's facility or residence for the duration of time that work is actively in progress. If no disconnect switch is present, the duration of such an outage may be longer than it would be with the switch.

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INTERCONNECTION TARIFF

D. General Conditions: (continued)

i) Disconnection (continued)

(ii) Interconnection customer's right to disconnect. The interconnection customer may disconnect the generating facility at any time, provided that the interconnection customer provides reasonable advance notice to the Company.

j) To ensure reliable service to Company customers and to minimize possible problems for other customers, the Company may review the need for upgrade to its system, including a dedicated transformer. If the Company notifies the interconnection customer that upgrades are required before or at the time of application approval, the interconnection customer shall pay for all the costs of those upgrades, except where inconsistent with these rules.

k) The Company may require, and if it so requires will provide its reasoning in writing, a transfer trip system or an equivalent protective function for a generating facility, that cannot: Detect distribution system faults (both line-to-line and line-to-ground) and clear such faults within time and operating parameters found in IEEE 1547 Tables 1 and 2; or detect the formation of an unintended island and cease to energize the electric system within two seconds.

l) **Metering**

(i) **Net Metering.** The Company shall install, own and maintain a kilowatt-hour meter or meters capable of registering the bi-directional flow of electricity at the point of common coupling. The meters shall meet or exceed all applicable accuracy standards. The meter may measure parameters including the time of delivery, power factor, and voltage. The interconnection customer shall provide space for metering equipment. The interconnection customer must provide the current transformer enclosure (if required), meter socket(s) and junction box after the Company approves the interconnection customer's drawings and equipment specifications.

(ii) **Production metering.** The Company may require separate metering for production. This meter will record all generation produced and may be billed separately from any net metering or customer usage metering. All costs associated with the installation of production metering will be paid by the interconnection customer.

m) **Labeling.** The interconnection customer must post common labeling, furnished or approved by the Company and in accordance with NEC requirements, on the meter base, disconnects, and transformers informing working personnel that a generating facility is operating at or is located on the premises.

n) **Insurance.** No additional insurance is necessary for a generating facility with a nameplate capacity under 100 kW.

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D. General Conditions: (continued)

o) Future Modification. An interconnection customer must obtain the Company's approval before any future modification or expansion of a generating facility. The Company may require the interconnection customer, at the interconnection customer's expense, to provide corrections or additions to existing electrical devices in the event of modification of government or industry regulations and standards, or major changes in the electrical system which impacts the interconnection.

p) Chapter 80.60 limits the total capacity of generation for net metering. However, the Company may restrict or prohibit new or expanded net metered systems on any feeder, circuit or network if engineering, safety, or reliability studies establish the need for a restriction or prohibition.

q) Cost allocation. Charges by the Company to the interconnection customer in addition to the application fee, if any, will be compensatory and applied as appropriate. Such costs may include, but are not limited to, transformers, production meters, and Company testing, qualification, studies and approval of non-UL 1741 listed equipment. The interconnection customer shall be responsible for any costs associated with any future upgrade or modification to its interconnected system required by modifications in the electric system.

r) Sale and assignment. The interconnection customer shall notify the Company prior to the sale or transfer of the generating facility, the interconnection facilities or the premises upon which the facilities are located. The interconnection customer shall not assign its rights or obligations under any agreement entered into pursuant to these rules without the prior written consent of the Company; such consent shall not be unreasonably withheld.

s) If the interconnection customer is a different entity than the owner of the real property on which the generating facility is located, the interconnection customer shall indemnify the Company for all risks to the owner of the real property, including disconnection of service. In addition, the interconnection customer shall obtain all legal rights and easements requested by the Company for the Company to access, install, own, maintain, operate or remove its equipment and the disconnect switch, if installed, on the real property where the generating facility is located, at no cost to the Company.

t) **Inverters.** If an inverter is utilized, the inverter must be certified by an independent, nationally recognized testing laboratory to meet the requirements of UL 1741. Inverters certified to meet the requirements of UL 1741 must use undervoltage, overvoltage, and over/under frequency elements to detect loss of electrical company power and initiate shutdown.

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INTERCONNECTION TARIFF

E. Completion of interconnection Process:

The interconnection process is complete and the generating facility can begin operation when:

a) The interconnection customer and the Company execute an interconnection agreement;

b) The interconnection customer provides, and the Company issues written approval for, a certificate of completion demonstrating:
   (i) The receipt of any required electrical and building permits, and installation in compliance with electrical and local building codes;
   (ii) Installation in compliance with the technical requirements for interconnection in this tariff;
   (iii) Inspection and approval of the system by the electrical inspector having jurisdiction over the installation.

c) All required agreements with the balancing area authority having jurisdiction, and all agreements covering the purchase, sale or transport of electricity and provision of any ancillary services have been completed and signed by all parties;

d) Witness test. If required by the Company, a representative of the Company witnesses and approves the operation of the generating facility in accordance with the requirements of this tariff; and

e) All requirements and conditions of the interconnection agreement have been satisfied and permission granted by the Company to proceed with commercial operation.

(N)