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# **Small Interconnection Resources Interconnection Procedures**

The following *Small Interconnection Resources Interconnection Procedures* ("**SIRIP**") shall apply to the interconnection of all small retail renewable distributed generation and other distributed energy resources ("DER") including energy storage systems ("ESS") that operate in parallel with and are connected to La Plata Electric Association's ("LPEA") system, when such interconnections are not subject to the jurisdiction of the Federal Energy Regulation Commission ("FERC"). Generating Facilities connecting with LPEA's ("LPEA") System where the total nameplate generating capacity connected at one meter location is less than 10 MW, including eligible renewable energy resources and "Qualifying Facilities" as defined in Section 201 of the Public Utilities Regulatory Policies Act of 1978 ("PURPA"), applying for connection to LPEA System. These Procedures are intended to comply with the applicable requirements applied to LPEA by: the Colorado Public Utilities Commission ("CPUC") (to the extent applicable), the USDA Rural Utilities Service (to the extent applicable), the Federal Energy Regulation Commission (to the extent applicable), LPEA's Power Purchase Agreements, and all other applicable laws, rules and regulations.

LPEA may interconnect with the following Interconnection Resources:

- 1. A Certified inverter-based Interconnection Resource where the total nameplate generating capacity connected at one meter location is 25 kW AC or less pursuant to the Level 1 Process 25 kW AC Inverter Process. This resource may be paired with a non-exporting energy storage system no larger than 25 kW AC.
- 2. A Certified inverter-based Interconnection Resource where the total nameplate generating capacity connected at one meter location is between 25 kW AC and 5 MW AC or a non-inverter based generating facility no larger than 2 MW AC pursuant to the Level 2 Process.
- 3. An Interconnection Resource with commercial class service where the total nameplate generating capacity connected at one meter location is 10 MW AC or less pursuant to the Level 3 Process.

LPEA has both the right and obligation under the regulations implementing PURPA to purchase energy and capacity from Qualifying Facilities, as defined in Section 201 of PURPA. The amount of energy and capacity purchased by LPEA is subject to the capability of LPEA's electric system to accept and deliver such energy and capacity, as determined solely by LPEA. In order for LPEA to comply with its Power Purchase Agreements, purchase of energy, capacity, or both from a Qualifying Facility with a connected nameplate generating capacity of greater than 25 kW AC may require a contract with LPEA's power purchasing partners, including Tri-State Generation and Transmission Association, Inc. LPEA will coordinate the contract procedure between the Interconnection Customer and Tri-State Generation and Transmission Association, arrangements for Qualifying Facilities larger than 10 MW of installed capacity will be negotiated on a case-by-case basis.



### Section 1. Overview

### A. Applicability

- LPEA permits interconnection of any Interconnection Resource that meets the requirements set forth in these Procedures and LPEA's Interconnection Standards, including all standards concerning inverter settings, protective equipment, inspection, maintenance, insurance, metering, and liability. LPEA shall evaluate each Interconnection Request on a case-by-case-basis. LPEA's processes for evaluating Interconnection Requests are as follows:
  - a. Level 1 Process– An Interconnection Request to connect a Certified inverter-based Interconnection Resource no larger than 25 kW AC which may be paired with a non-exporting energy storage system no larger than 25 kW AC under its simplified interconnection procedures outlined in the Level 1 Process.
  - b. Level 2 Process (Fast Track Process) An Interconnection Request to interconnect a Certified inverter-based Interconnection Resource with a total nameplate generating capacity between 25 kW AC and 5 MW AC or a non-inverter-based Interconnection Resource no larger than 2 MW AC by LPEA under the Level 2 Process (Fast Track Process).
  - c. Level 3 Process An Interconnection Request to connect an Interconnection Resource larger than 5 MW AC but no larger than 10 MW AC, an Interconnection Resource that is not Certified, or a Certified Interconnection Resource that does not pass the Level 1 Process or Level 2 Process shall be evaluated by LPEA under the Level 3 Process.
  - d. Non-Export Process Non-exporting interconnection resources shall be evaluated under the non-export interconnection process. The non-export interconnection process is also applicable to additions of new non-exporting interconnection resources paired with existing interconnection resources when the existing interconnection resources have already executed an Interconnection Agreement.
- 2. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1.
- 3. Prior to submitting its Interconnection Request, the Interconnection Customer may consult with LPEA to determine whether the proposed interconnection is subject to these Procedures. LPEA shall respond to such informal requests within 15 Business Days.



4. As a condition of interconnection with LPEA's System, each Interconnection Customer shall comply with requirements to ensure infrastructure security, operational security, including physical, operational, and cyber-security, as determined by LPEA or required by applicable law. The Interconnection Customer shall provide all security measures required by LPEA.

### **B.** Pre-Application

- 1. LPEA, through its Engineering Department, will provide basic information on the application process and LPEA's system upon request from the Interconnection Customer presenting a proposed project for a specific site.
- Information for contacting LPEA shall be made available on LPEA's website (www.LPEA.coop) or by contacting LPEA's Renewable Energy Generation Advisor at renewables@lpea.coop.
- 3. In responding to any other informal request from an Interconnection Customer, LPEA may provide information regarding specific locations, feeders, or small areas of LPEA's System. Such information may include relevant system studies, interconnection studies, and other information useful in understanding a particular point of interconnection on LPEA's System.
- 4. LPEA shall not be required to provide information to the Interconnection Customer that would violate confidentiality provisions of prior agreements or critical infrastructure requirements. LPEA shall comply with reasonable requests for such information unless such information is proprietary or confidential and cannot be provided pursuant to a confidentiality agreement.
- 5. An Interconnection Customer may submit a formal written request for a pre-application report on a proposed interconnection at a specific site using a form supplied by LPEA unless such information is confidential and cannot be provided pursuant to a confidentiality agreement. LPEA shall respond to pre-application report requests within 20 Business Days. Upon completion, each pre-application report shall be dated and publicly posted to LPEA's website with any customer identifying information redacted.
  - a. The pre-application report shall be non-binding on the utility and shall not confer any rights to the Interconnection Customer. The provided information does not guarantee that an interconnection may be completed. Data provided in the preapplication report may become outdated at the time of the submission of the complete Interconnection Request.



- b. The pre-application report may only include already existing information. LPEA, at its discretion, may choose to not conduct a study or other analysis of the proposed Interconnection Resource if data does not already exist.
- c. If LPEA cannot complete all or part of the pre-application report due to a lack of available data, LPEA will explain what information is not available and why it is not available. LPEA will still provide whatever pre-application data is available.
- d. In a pre-application report LPEA will include data that represents the best available information at the time of reporting including:
  - i. Total capacity (in MVA) of substation/area bus, bank or circuit based on normal or operating ratings likely to server the proposed Point of Interconnection;
  - Existing aggregate generation DER capacity (MW AC) interconnected to a substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection;
  - iii. Aggregate queued DER capacity (MW AC) for a substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection;
  - iv. Available capacity (MW AC) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate DER capacity and aggregate queued DER capacity);
  - V. Substation nominal distribution voltage and/or transmission nominal voltage, if applicable;
  - vi. Nominal distribution or transmission circuit voltage at the proposed Point of Interconnection whether the proposed DER is eligible for the Level 1, Level 2, or non-export process;
  - Vii. Approximate circuit distance between the proposed Point of Interconnection and the substation;
  - viii. Relevant Line Section(s) actual or estimated peak load and minimum load data, including daytime minimum load as it pertains to the type of generation and absolute minimum load at the time of DER production, when available;



- ix. Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Statement of whether the substation has a load tap changer;
- X. Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit;
- xi. Whether the point of interconnection is located on a spot network, grid network, or radial supply; and
- Xii. Existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks based on the proposed Point of Interconnection.

# C. Energy Storage Interconnections

- Non-exporting energy storage may inadvertently export, so long as the magnitude is less than the energy storage's nameplate rating (kW-gross) and the duration of export of power from the Interconnection Customer's energy storage is less than 30 seconds for any single event. There are no limits to the number of events. Inadvertent export events shall not exceed thermal, service voltage, power quality or network limits defined within Commission rules or Interconnection Standards. For good cause shown, the Commission may grant a variance of this section.
- 2. When an energy storage system is installed in conjunction with an Interconnection Resource, both shall be reviewed at the same time and be included in one Interconnection Agreement.
- 3. Interconnection Requests are reviewed based on the combined nameplate ratings of systems accounting for their export capacity, and energy storage operating mode. The ongoing operation capacity portion of the interconnection review is based on the actual simultaneous performance AC ratings, taking into account the operational differences of load offset and export. If the contribution of the energy storage to the total contribution is limited by programing of the maximum active power output, use of a power control system, use of a power relay, or some other mutually agreeable, onsite limiting element, only the capacity that is designed to inject electricity to LPEA's System (other than inadvertent exports and fault contribution) will be used within certain technical screens and evaluations as specified in the Level 2 Fast Track process and Level 2 supplemental review process.
- 4. Failure of hardware or software system(s) intended to limit energy storage export capacity shall cause the energy storage system to enter a safe operating state. An energy storage system combined with a UL 1741 certified power control system shall be considered capable of entering a safe operating state upon failure of hardware or software system(s). When mutually agreed fail-safe provisions are not



provided, at LPEA's discretion, the Interconnection Request may be evaluated using the maximum rated capacity of the energy storage system.

- 5. When a storage system is installed at the same Point of Interconnection location as an existing interconnected Interconnection Resource, the review level will be based upon the incremental addition of the Interconnection Resource rated capacity and the exporting storage system rated capacity as provided in Section 1.C.3.
- 6. A storage system may be located on the same side of a production meter as a generating facility when a production meter is required by these rules provided that the storage system is either nonexporting at the service meter or is charged exclusively by the generating facility and only the production recorded by the production meter will be eligible for incentives.

### **D.** Interconnection Requests

- 1. The Interconnection Customer shall submit an Interconnection Request to LPEA as required in this procedure, together with the application fee or deposit specified in the Interconnection Request. The Interconnection Request shall be date- and time-stamped upon receipt. The original date- and timestamp applied to the Interconnection Request at the time of its original submission shall be accepted as the qualifying date- and timestamp for the purposes of any timetable in this procedure.
- 2. LPEA shall notify the Interconnection Customer of receipt of the Interconnection Request within 3 Business Days of such receipt. The notification will be to an e-mail address provided by the Interconnection Customer.
- 3. LPEA shall notify the Interconnection Customer within 10 Business Days of the receipt of the Interconnection Request as to whether the Interconnection Request is deemed, in the sole discretion of LPEA, to be complete or incomplete. The notification will be to an e-mail address provided by the Interconnection Customer.
  - a. If the Interconnection Request is incomplete, LPEA shall provide notice that the Interconnection Request is incomplete and will provide a written list detailing all information that must be provided to complete the Interconnection Request. The Interconnection Customer will have 10 Business Days after receipt of the notice to submit the listed information or request a time extension to provide such information. If the Interconnection Customer does not provide the required information or a request for an extension of time within the deadline, the Interconnection Request may be deemed withdrawn.



b. An Interconnection Request will be deemed complete upon submission of the required information to LPEA as reasonably determined by LPEA on or before the applicable deadline.

### E. Modification of the Interconnection Request

- Any modification to the Interconnection Resource data or equipment configuration, or to the interconnection site that is a material modification, not otherwise agreed to in writing by LPEA, may be deemed by LPEA to be a withdrawal of the Interconnection Request and may require submission of a new interconnection request. A new interconnection request shall not be required for minor modifications to the Interconnection Resource data or equipment configuration, or to the interconnection site. Within 10 Business Days of receipt of a proposed modification, LPEA, in consultation with an affected system owner, if applicable, shall evaluate whether a proposed modification constitutes a material modification.
  - a. If the proposed modification is determined to be a material modification, then LPEA shall notify the Interconnection Customer in writing that the customer may: withdraw the proposed modification; or proceed with a new interconnection request for such modification. The Interconnection Customer shall provide its determination in writing to LPEA within 10 Business Days after LPEA provides the material modification determination results. If the Interconnection Customer does not provide its determination, the customer's request shall be deemed withdrawn.
  - b. If the proposed modification is determined not to be a material modification, then LPEA shall notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its eligibility for interconnection including its place in the interconnection queue.
  - c. Any dispute as to LPEA's determination that a modification constitutes a material modification shall proceed in accordance with the dispute resolution provisions in these procedures.



### F. Site Control

- In addition to the information required to be submitted to LPEA in an Interconnection Request, an Interconnection Customer shall submit site control documentation with the Interconnection Request. Site control may be demonstrated through:
  - a. ownership of, a leasehold interest in, or a right to develop the site for the purpose of constructing the Interconnection Resource;
  - b. an option to purchase or acquire a leasehold site for such purpose;
  - c. an exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or
  - d. For Interconnection Resources utilizing the Level 1 25 kW AC inverter process, proof of site control may be demonstrated by the Interconnection Customer's signature on the Customer Agreement.



# G. Queue Position

- 1. LPEA shall place each Interconnection Request in a queue on a first-come, first- serve basis per Line Section, per feeder, per substation transformer, and per substation based upon the date-stamp and timestamp of the Interconnection Request.
- 2. The order of each Interconnection Request will be used by LPEA to determine the cost responsibility of the Interconnection Customer for any System upgrades that LPEA determines are necessary to accommodate the interconnection. The Interconnection Customer(s) whose interconnection causes the need for upgrades to the Interconnection Facilities and Upgrades shall be responsible for 100% of such costs.
- 3. Interconnection Requests may be studied serially or in clusters for the purpose of a system impact study.

# H. Assignment/Transfer of Ownership of the Facility

Interconnection Agreements shall survive transfer of ownership of the Interconnection Resource to a new owner when the new owner agrees in writing to comply with the terms of the agreement and so notifies LPEA. A signature on LPEA's membership agreement form or similar document shall constitute such a writing. A copy of the existing Interconnection Agreement may be requested by a new owner and will be provided within 10 Business Days.



### Section 2. Level 1 Process (25 kW AC Inverter Process)

#### A. Eligibility

The Interconnection Request for the Level 1 Process for a Certified inverter-based Interconnection Resource where the total nameplate generating capacity connected at one meter location is 25 kW AC or less pursuant to the Level 1 Process will consist of a Customer Agreement, an Interconnection Application and supporting documents and an Interconnection Agreement. Section 1 and 6 of these Procedures shall apply to the Level 1 Process.

#### **B.** General Level 1 Procedures

- 1. The Interconnection Customer submits the Interconnection Request consisting of a Customer Agreement and an Interconnection Application and supporting documents to LPEA.
- 2. LPEA will send the Interconnection Customer acknowledgement of receipt of the Interconnection Request to an e-mail address provided by the Interconnection Customer within 3 Business Days of receipt.
- 3. LPEA will evaluate the Interconnection Application and supporting documents for completeness and will notify the Interconnection Customer within 10 Business Days of receipt that the Interconnection Request is or is not complete. If the Interconnection Request is incomplete, LPEA will indicate what material is missing. Notifications will be sent to an email address provided by the Interconnection Customer.
- 4. Within 10 Business Days of acknowledging a complete Interconnection Request, LPEA will conduct an engineering review to evaluate whether the Certified inverter-based Interconnection Resource can be interconnected safely and reliably using the following Screens described in Section 3.C.1a, b, c, d, g, h, i, I and any other screens determined to be necessary by LPEA for the safety and reliability of its system.
- 5. If the Interconnection Request passes engineering review including the relevant screens, LPEA will provide the Interconnection Customer an executable Interconnection Agreement within 5 Business Days after the determination.
- 6. If the Interconnection Request fails these screens, LPEA shall generally consider this a failure of the pertinent Level 2 Initial Review Screens. LPEA shall continue the interconnection review under the Level 2 Process starting with a customer options meeting, provided the Interconnection Customer pays deposit requirements.
- If the Interconnection Request fails the screens, but LPEA determines that the Interconnection Resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, LPEA will provide the Interconnection Customer an executable Interconnection Agreement within 5 Business Days after the determination.
- 8. After installation of the Interconnection Resource, the customer must provide a Certificate of



Completion to LPEA. Prior to parallel operation, LPEA may inspect the Interconnection Resource to verify that it complies with LPEA's Interconnection Standards. This inspection process may involve onsite inspection of the Interconnection Resource or photo documentation of the Interconnection Resource at LPEA's discretion. LPEA will perform this inspection within 10 Business Days of receipt of the Certificate of Completion. The Interconnection Customer has no right to operate in parallel until LPEA completes its inspection.

9. If the Interconnection Resource fails the inspection, LPEA has the right to disconnect the Interconnection Resource and prevent it from operating in parallel with LPEA's System until it passes inspection from LPEA.



### Section 3. Level 2 Process (Fast Track)

#### A. Eligibility

- This fast-track process is available to an Interconnection Customer proposing to interconnect its Interconnection Resource with LPEA's system if the Interconnection Resource meets the eligibility provisions. Eligibility for the Level 2 Process is determined based upon the type and size of the Interconnection Resource as well as the voltage of LPEA's line and the location of and the type of utility line at the Point of Interconnection. An Interconnection Customer may determine whether the Interconnection Resource is eligible for the Level 2 Process by requesting a pre-application report.
- 2. For Certified inverter-based systems, the size limit of the Interconnection Resource varies according to the voltage of the utility line at the proposed Point of Interconnection. Certified inverter-based Interconnection Resource facilities located within 2.5 electrical circuit miles of a substation and on a Mainline are eligible for the Level 2 Process under the higher thresholds pursuant to the table below.

Level 2 Process Eligibility for Inverter-Based Systems				
Line Voltage	Eligibility Regardless of Location	Eligibility Meeting Location Requirements (Mainline and Substation)		
≥ 5 kV and < 15 kV	≤ 2 MW	≤ 3 MW		
≥ 15 kV and ≤ 69 kV	≤ 3 MW	≤ 5 MW		

- 3. All synchronous and induction facilities must be no larger than 2 MW AC to be eligible for the Level 2 Process, regardless of location.
- 4. In addition to the size threshold, the Interconnection Resource must meet the codes, standards, and certification requirements specified in Attachments 2 and 3 of these procedures.

#### B. Initial Review

Within 15 Business Days after LPEA notifies the Interconnection Customer it has received a complete Interconnection Request in accordance with Section 1.D, LPEA shall: (1) perform an initial review using the Screens set forth below, (2) shall notify the Interconnection Customer of the results, and (3) include with the notification copies of the analysis and data underlying LPEA's determinations under the following Screens.



#### 1. Screens:

- a. The proposed Interconnection Resource Point of Interconnection must be on a portion of LPEA's System that is subject to LPEA's tariffs. Proposed Interconnection Resources on Highly Seasonal Circuits shall also be subject to the supplemental review pursuant to Section 3.D.
- b. For interconnection of a proposed Interconnection Resource to a radial distribution circuit, the aggregated generation, including the proposed Interconnection Resource, shall not exceed 15% of the Line Section's annual peak load as most recently measured at the substation or calculated for the Line Section. Energy storage system(s) capacity for purposes of this screen shall be based on only the capacity that is designed to inject electricity to LPEA's distribution system (other than inadvertent exports and fault contribution).
- c. The proposed Interconnection Resource, in aggregate with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed Point of Interconnection.
- d. The proposed Interconnection Resource, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fused cutouts, and line reclosers), or the Interconnection Customer equipment on the system to exceed 87.5% of its short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.
- e. The proposed Interconnection Resource shall meet the rapid voltage change and flicker requirements of IEEE Standard 1453 (2015) and IEEE Standard 1547-2018, until January 1, 2022, or until such time new DERs applying for interconnection will comply with IEEE 1547-2018 based on the appropriate test. This rule does not include any later amendments or editions of these standards. (Level 2 only)
- f. The type of interconnection to a primary distribution line shall be determined based on the table below, including a review of the type of electrical service provided to the Interconnection Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on LPEA's electric power system due to a loss of ground during the operating time of any antiislanding function. (Level 2 only)



Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase- to-phase	Pass Screen
Three-phase, four wire	Effectively-grounded 3 phase or Single- phase, line-to-neutral	Pass Screen

- g. If the proposed Interconnection Resource is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Interconnection Resource, shall not exceed 25 kW. Energy storage system(s) capacity for purposes of this screen shall be based on only the capacity that is designed to inject electricity to LPEA's distribution system (other than inadvertent exports and fault contribution).
- h. If the proposed Interconnection Resource is single-phase and is 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 20% of the nameplate rating of the service transformer.
- i. No construction of facilities by LPEA on its System shall be required to accommodate the Interconnection Resource.
- j. For interconnection of a proposed Interconnection Resource to the load side of spot network protectors serving more than a single customer, the proposed Interconnection Resource must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 300 kW. For spot networks serving a single customer, the Interconnection Resource must use inverter-based equipment package and either meet the requirements above or shall use a protection scheme or operate the generator so as not to exceed on-site load or otherwise prevent nuisance operation of the spot network protectors.
- k. For interconnection of a proposed Interconnection Resource to the load side of area network protectors, the proposed Interconnection Resource must utilize an inverter-based equipment package and, together with the aggregated other inverter- based generation, shall not exceed the smaller of 10% of an area



network's minimum load or 500 kW.

- I. The nameplate capacity of a proposed Interconnection Resource, in combination with the nameplate capacity of any previously interconnected interconnection resource, shall not exceed the capacity of the Interconnection Customer's existing electrical service unless there is a simultaneous request for an upgrade to the Interconnection Customer's electrical service, regardless of exporting or nonexporting designations for any of the interconnection resources.
- If LPEA determines that the proposed interconnection passes the Screens, the Interconnection Request shall be approved and LPEA will provide to the Interconnection Customer an executable Interconnection Agreement within 5 Business Days after the determination.
- 3. If LPEA determines that the proposed interconnection fails the Screens, but LPEA determines that the Interconnection Resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, LPEA shall provide to the Interconnection Customer an executable Interconnection Agreement within 5 Business Days after the determination.
- 4. If the proposed interconnection fails the Screens, and LPEA does not or cannot determine from the initial review whether the Interconnection Resource may nevertheless be interconnected consistently with safety, reliability and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study as determined in LPEA's sole discretion, LPEA will provide the Interconnection Customer with an opportunity to attend a customer options meeting (as defined below) to discuss such proposed changes. LPEA will provide the Interconnection Customer with detailed information on the reasons for failure.

# C. Customer Options Meeting

If the proposed interconnection fails the Screens as determined by LPEA, and LPEA determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost; (2) a supplemental study or other additional studies or actions; or (3) at significant cost to address safety, reliability, or other power quality problems, within the 5 Business Day period after the determination, LPEA shall notify the Interconnection Customer and provide copies of the data and analyses underlying its conclusion. Within 10 Business Days of the determination, LPEA shall offer to convene a customer options meeting to review possible Interconnection Customer facility modifications or the Screen analysis and related results, to determine what further steps are



needed to permit the Interconnection Resource to be connected safely and reliably. At the time of notification of LPEA's determination, or at the customer options meeting, LPEA shall:

- 1. Offer to perform facility modifications or minor modifications to LPEA's electric system that are required (e.g., changing meters, fuses, relay settings), and provide a non-binding good faith estimate of the limited cost to make such modifications to LPEA's electric system;
- 2. Offer to perform a supplemental review, as described in Section 3.D, if LPEA concludes that the supplemental review might determine that the Interconnection Resource could continue to qualify for interconnection pursuant to the Level 2 Process (Fast Track), and provide a non-binding good faith estimate of the time of such review; or
- 3. Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the Level 3 Study Process.

# D. Supplemental Review

If the Interconnection Customer agrees to a supplemental review in writing within 15 Business Days of the offer, the Interconnection Customer shall pay a \$300 fee for the supplemental review.

- 1. Within 30 Business Days following receipt of the fee for a supplemental review, LPEA will perform a supplemental review of the proposed Interconnection Resource using the screens set forth below, notify the Interconnection Customer of the results of the screens in writing, and include with the notification copies of the analysis and data underlying LPEA's determinations.
- 2. The Interconnection Customer may specify the order in which LPEA completes the supplemental review screens.
- 3. LPEA shall notify the Interconnection Customer of the failure of the Interconnection Resource in any supplemental review screen or of LPEA's inability to perform any screen for the Interconnection Resource. Within 2 Business Days of the receipt of such notice, the Interconnection Customer may grant LPEA permission:
  - a) to continue the supplemental review process of the proposed interconnection;
  - b) to continue the supplemental review process of the proposed interconnection subject to LPEA's determination of minor modifications;
  - c) to terminate the supplemental review and instead to continue evaluating the Interconnection Resource under the Level 3 Process; or
  - d) to terminate the supplemental review upon withdrawal of the



Interconnection Request by the Interconnection Customer

- 4. Supplemental review screens
  - a) Minimum Load Screen
    - i) Minimum load, minimum loading, and minimum load data shall be specific to time(s) that the Interconnection Resource exports active power to LPEA.
    - ii) The Interconnection Resource capacity on the Line Section(s) shall be less than 100% of the minimum load for all Line Sections bounded by automatic sectionalizing devices upstream of the proposed Interconnection Resource. Energy storage system(s), proposed and aggregated capacity for purposes of this screen, shall be based on Section 1.C.3.
    - iii) This screen shall be determined using 12 months of Line Section(s) minimum load data (including onsite load but not station service load served by the proposed Interconnection Resource), calculated minimum load data, or estimated minimum load data using existing data a power flow model. If minimum load data is not available or the minimum load data cannot be calculated or estimated, LPEA shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification as described in Section 3.E.3.
    - iv) The type of interconnection resource shall be taken into account when calculating or estimating circuit or Line Section(s) minimum load. LPEA shall use daytime minimum load for solar photovoltaic (PV) interconnection resource with no battery storage (i.e.,10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems). LPEA shall use absolute minimum load for all other types of interconnection resources.
    - v) Only the net injection into the LPEA's electric system shall be considered as part of the Interconnection Resource when this screen is applied to Interconnection Resource serving some station service load.
    - vi) LPEA shall not consider as part of the Interconnection Resource the capacity known to be already reflected in the minimum load data.
  - b) Voltage and Power Quality Screen
    - i) In aggregate with existing interconnection resource(s) on the circuit



and Line Section(s), the voltage regulation on the circuit and Line Section(s) shall be maintained in compliance with relevant requirements under all system conditions;

- ii) In aggregate with existing interconnection resource(s) on the circuit and Line Section(s), the voltage fluctuation shall be within acceptable limits as defined by IEEE Standard 1453-2015 and conforming with IEEE Standard 1453-2015, while also taking into account activated inverter functionality, and by the limits defined by IEEE Standard 1547-2018. This rule does not include any later amendments or editions of these standards.
- iii) In aggregate with existing Interconnection Resource(s) on the circuit and Line Section(s), the harmonic levels shall meet IEEE Standard 519 (2014) limits. This rule does not include any later amendments or editions of these standards.
- c) Safety and Reliability Screen
  - The location of the proposed Interconnection Resource and the aggregate interconnection resource capacity on the Line Section(s) shall not create impacts to safety or reliability that cannot be adequately addressed without application of the Level 3 Process.
  - Minimum load, minimum loading and minimum load data shall be specific to time(s) of Interconnection Resource export capacity.
  - iii) LPEA shall consider whether the Line Section(s) has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).
  - iv) LPEA shall consider whether the loading along the Line Section(s) is uniform or even given the sources of the screening data.
  - v) LPEA shall consider whether the proposed Interconnection Resource is located in close proximity to a substation (i.e., less than 2.5 electrical circuit miles) and whether the Line Section(s) from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.
  - vi) LPEA shall consider whether the proposed Interconnection Resource incorporates a time delay function to prevent reconnection of the Interconnection Resource to LPEA's System until system voltage and frequency are within normal limits for a prescribed time.
  - vii) LPEA shall consider whether operational flexibility is reduced by the



proposed Interconnection Resource, such that transfer of the line distribution circuit/substation may trigger overloads or voltage issues.

- viii) LPEA shall consider whether the proposed Interconnection Resource employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, and voltage quality.
- 5. If the supplemental screening meets LPEA determined adequacy with minor modifications, LPEA shall provide a non-binding good faith estimate of the limited cost to make such modifications to the LPEA's electric system upon notification of review results.

### **E.** Interconnection Agreements

- If the proposed interconnection passes the screens, the Interconnection Request shall be approved and LPEA will provide the Interconnection Customer an executable Interconnection Agreement within 5 Business days after the determination.
- If the proposed interconnection fails the screens, but LPEA determines that the Interconnection Resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, LPEA shall provide the Interconnection Customer an executable Interconnection Agreement with 5 Business Days after determination.
- 3. If modifications to the Interconnection Customer's facilities are required to allow the Interconnection Resource to be interconnected consistent with safety, reliability, and power quality standards under these Procedures, LPEA shall provide the Interconnection Customer an executable Interconnection Agreement to the Interconnection Customer within 5 Business Days after confirmation that the Interconnection Customer has agreed to make the necessary changes at the Interconnection Customer's expense and that the changes will be made in a timely manner to allow for project completion within 1 year of receiving engineering approval.
- 4. If the Interconnection Customer agrees to pay for the modifications to LPEA's System that are required to allow the Interconnection Resource to be interconnected as identified in the customer options meeting as described in Section 3.C, LPEA shall provide an executable Interconnection Agreement to the Interconnection Customer within 10 Business Days of the customer options meeting.
- 5. If the Interconnection Customer agrees to pay for the modifications to LPEA's electric system as identified by LPEA in the supplemental review process described in Section 3.D, LPEA shall provide an executable Interconnection Agreement to the Interconnection Customer within 5 Business Days of Interconnection Customer agreement to pay.
- 6. If LPEA determines that the Interconnection Resource cannot be interconnected safely and reliably in accordance with the Level 2 Process, it shall offer to review the Interconnection Request under the



Level 3 Study Process with the written consent of the Interconnection Customer.



### Section 4. Level 3 Study Process

#### A. Applicability

- The Level 3 Study process shall be used by an Interconnection Customer proposing to interconnect its Interconnection Resource with LPEA's system if the Interconnection Resource:
  - a. is larger than 2 MW AC if a not an inverter-based resource or 5 MW AC if a Certified inverterbased resource but not larger than 10 MW AC;
  - b. is not Certified; or
  - c. is Certified but did not pass the Level 1 25 kW AC Inverter Process or Level 2 Fast Track Process.

#### **B.** Scoping Meeting

- A scoping meeting will be held within 10 Business Days after the Interconnection Request is deemed complete by LPEA in accordance with Section 1.D or at a date mutually agreed to by the Parties. LPEA and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.
- 2. The purpose of the scoping meeting is to discuss the Interconnection Request and review existing studies relevant to the Interconnection Request. The Parties shall further discuss whether LPEA should perform a feasibility study or proceed directly to a system impact study, or a facilities study, or an Interconnection Agreement. If the parties agree that a feasibility study should be performed, LPEA shall provide the Interconnection Customer within 5 Business Days after the scoping meeting, a feasibility study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.
- 3. The scoping meeting may be omitted by agreement of the Parties.
- 4. To remain in consideration for interconnection, an Interconnection Customer who has requested a feasibility study must return the executed feasibility study agreement within 15 Business Days.
- 5. If the Interconnection Customer elects to not perform a feasibility study but to move to a system impact study or a facilities study, LPEA shall provide the Interconnection Customer no later than 5 Business Days after the scoping meeting a system impact study agreement, including an outline of the scope of the study and a non- binding good faith cost estimate



to perform the study.

- 6. Feasibility studies, system impact studies, and facilities studies may be combined or waived for simpler projects by mutual agreement of the Parties. If all such studies are waived, LPEA shall provide the Interconnection Customer an executable Interconnection Agreement within 10 Business Days after the scoping meeting. If the scoping meeting is also omitted by mutual agreement, LPEA shall provide the Interconnection Customer an executable agreement within 10 business days after the Interconnection Request is deemed complete and the Level 2 Process is completed.
- 7. If feasibility studies, system impact studies, and facilities studies are combined, or required to be completed for a single application, LPEA shall perform the combined studies within no more than 90 Business Days of the date upon with the Interconnection Customer authorizes LPEA to proceed with the Level 3 Process.
- 8. LPEA will offer a developer the opportunity to pay full fees upfront and proceed directly to the system impact study.

#### C. Feasibility Study

- 1. Upon receipt of a feasibility study agreement from LPEA, the Interconnecting Customer shall have 15 Business Days to execute and return the feasibility study agreement to LPEA or request an extension of time, or the Interconnection Request shall be automatically deemed withdrawn.
- 2. Within 30 Business Days of executing a feasibility study agreement, LPEA shall perform a feasibility study. The feasibility study shall identify any potential adverse system impacts that would result from the interconnection of the Interconnection Resource. At its discretion, LPEA may use the Level 2 supplemental review as described in Section 3.D as the feasibility study.
- 3. A deposit of the lesser of 50% of the good faith estimated feasibility study costs or earnest money of \$1,000 shall be required from the Interconnection Customer before LPEA performs this study.
- 4. The scope of and cost responsibilities for the feasibility study are described in the feasibility study agreement.
- 5. If the feasibility study shows the potential for adverse system impacts, the review process shall proceed to the appropriate system impact study(ies). LPEA shall send the



Interconnection Customer a system impact study agreement, within 15 Business Days of transmittal of the feasibility study report, including, without limitation, an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.

6. If the feasibility study shows no potential for transmission system or distribution system adverse system impacts, LPEA shall send the Interconnection Customer within 5 Business Days following transmittal of the feasibility study report either: (1) a facilities study agreement, including an outline of the scope of the study and a non-binding good faith estimate to perform the study (2) in the case where a facilities study is determined to be unnecessary, LPEA shall provide the Interconnection Customer with an Interconnection Agreement.

### D. System Impact Study

- 1. To remain under consideration for interconnection, the Interconnection Customer must return an executed system impact study agreement, if applicable, within 30 Business Days, or the Interconnection Request shall be automatically deemed withdrawn.
- 2. Within 30 Business Days of receiving an executed system impact study agreement, LPEA shall perform a system impact study as described below.
- 3. A deposit of the good faith estimated costs for each system impact study may be required from the Interconnection Customer before LPEA performs the study(ies).
- 4. A system impact study shall identify and detail the electric system impacts that would result if the proposed Interconnection Resource were interconnected without project modifications or electric system modifications, focusing on the adverse system impacts identified in the feasibility study, or to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric distribution and transmission system.
- 5. The scope and cost responsibilities for a system impact study are described in the system impact study agreement.
- 6. If no transmission system impact study is required, but potential electric power distribution system adverse system impacts are identified in the scoping meeting or shown in the feasibility study, a distribution system impact study must be performed. LPEA shall send the Interconnection Customer a distribution system impact study agreement within 15



Business Days of transmittal of the feasibility study report, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study, or following the scoping meeting if no feasibility study is to be performed.

- 7. In instances where the feasibility study or the distribution system impact study shows potential for transmission system adverse system impacts, within 5 Business Days following transmittal of the feasibility study report, LPEA shall send the Interconnection Customer a transmission system impact study agreement, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study.
- 8. Where transmission systems and distribution systems have separate owners, the Interconnection Customer may apply to the transmission owner to request project coordination. Affected Systems shall participate in the study and provide all information necessary to prepare the study.
- 9. Once the require system impact study(ies) is(are) completed, a system impact study report shall be prepared and transmitted to the Interconnection Customer along with a facilities study agreement within 5 Business Days, including an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study.
- 10. If no facilities study is required for the Interconnection Resource, LPEA shall provide the Interconnection Customer an executable Interconnection Agreement within 5 Business are the completion of the system impact study.

# E. Facilities Study

- 1. To remain under consideration for interconnection or, as appropriate, maintain Queue Position, the Interconnection Customer must return the executed facilities study agreement or a request for an extension of time within 30 Business Days, or the Interconnection Request shall be automatically deemed withdrawn.
- 2. Within 45 Business Days of executing a facilities study agreement, LPEA shall perform a facilities study.
- 3. The facilities study shall specify and estimate the necessary systems upgrades, an overall cost estimate, with the detailed list to indicate types of equipment, labor, operation and maintenance and other evaluated item costs within the estimate for completing such upgrades and identify which itemized cost estimates are uncertain and could be exceeded by 125% if actual upgrades are



completed.

- 4. A deposit of the good faith estimated costs for the facilities study may be required from the Interconnection Customer.
- 5. Design for any required Interconnection Facilities and/or Upgrades shall be performed under the facilities study agreement. LPEA may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and LPEA may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by LPEA, under the provisions of the facilities study agreement. If the parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, LPEA shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.
- 6. The scope and cost responsibilities for a facilities study shall be described in the facilities study agreement.
- Upon completion of the facilities study, and with the agreement of the Interconnection Customer to pay for Interconnection Facilities and Upgrades identified in the facilities study, LPEA shall provide the Interconnection Customer an executable Interconnection Agreement within 5 Business Days.



#### Section 5. Non-Export Process

#### A. Eligibility

The Non-Export Process applies to all Interconnection Requests where the Interconnection Resource is designed to not export power to LPEA's System. The Non-Export Process can apply to generation, storage, or generation and storage so long as it can be confirmed that the Interconnection Resource meets all relevant certifications and requirements to ensure the system does not export power to LPEA's system. The Non-Export Process also applies to interconnection resources that are non-exporting even if they are paired with an Interconnection Resource that does export power to LPEA's System.

#### **B.** General Non-Export Procedures

- 1. The Interconnection Customer submits the Interconnection Request to LPEA. An export limit of 0 kW must be indicated on the Interconnection Application.
- 2. LPEA will send the Interconnection Customer acknowledgement of receipt of the Interconnection Request within 3 Business Days of receipt.
- 3. LPEA will evaluate the application for completeness and will notify the Interconnection Customer within 10 Business Days of receipt that the Interconnection Request is or is not complete. If the Interconnection Request is incomplete, LPEA will indicate what material is missing.
- 10. Within 10 Business Days of acknowledging a complete Interconnection Request, LPEA will conduct an engineering review to evaluate whether the Non-Export Interconnection Resource can be interconnected safely and reliably using the following Screens described in Section 3.C.1a, b, g, h, i and any other screens determined to be necessary by LPEA for the safety and reliability of its system.
- 4. LPEA will also verify whether the Non-Export Interconnection Resource is capable of interconnecting and not exporting power to LPEA's System except as allowed for in Section 1.C.
- 5. Verification of Non-Export settings in a Certified inverter-based generation, power control system or energy storage system will satisfy this requirement. If the Interconnection Resource is deemed to satisfy Non-Export requirements, LPEA will provide the Interconnection Customer with an executable Interconnection Agreement within 5 Business Days after the determination.
- 6. After installation of the Interconnection Resource, the customer must provide a Certificate of Completion to LPEA.
- 7. Interconnection resources approved under the Non-Export procedures may export power to LPEA's System in situations where authorized by written permission from LPEA at LPEA's sole discretion.
- If at any time in the future the Interconnection Customer wishes to have some or all of their Interconnection Resource recharacterized from Non-Export to exporting they will need to go through the relevant interconnection process that is applicable to their Interconnection Resource based on its



size, type, and location, and subject to an export capacity waitlist position.



#### Section 6. Provisions that Apply to All Interconnection Requests

#### **A.** Reasonable Efforts

LPEA will make reasonable efforts to meet all time frames provided in these procedures unless LPEA and the Interconnection Customer agree to a different schedule. If LPEA cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure.

#### **B.** Disputes

- 1. The Parties shall agree to attempt to resolve all disputes arising out of the interconnection provisions of these Procedures.
- 2. In the event of a dispute, either Party shall provide the other Party with a written notice of dispute. Such notice shall describe in detail the nature of the dispute. If the dispute has not been resolved within 5 Business Days after receipt of the notice, either Party may contact a mutually agreed upon third party dispute resolution service (e.g., arbitration, mediation, or technical expert) for assistance in resolving the dispute.
- 3. The dispute resolution service will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., arbitration, mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute.
- 4. Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third parties.
- 5. If neither Party elects to seek assistance from the dispute resolution service, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of the agreements between the parties or it may seek resolution at the Colorado Public Utilities Commission pursuant to the Rules of Practice and Procedure, 4 Code of Colorado Regulations 723-1.

#### C. Interconnection Metering

All metering necessitated by the use of the Interconnection Resource shall be installed at the Interconnection Customer's expense and in accordance with LPEA's rules and regulations. For energy storage systems below 25 kW AC, additional metering shall not be required by LPEA for the



purposes of monitoring energy storage systems.

### **D.** Commissioning Tests

- 1. Commissioning testing of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards including IEEE 1547.1 IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems" (2020). This rule does not include any later amendments or editions of this standard. LPEA must be given at least 5 Business Days written notice of the tests, or as otherwise mutually agreed to by the parties, and one or more LPEA representatives may be present to witness the commissioning tests.
- 2. If the commissioning tests are not satisfactory in the sole judgment of LPEA, LPEA shall have the right to disconnect the Interconnection Resource if LPEA provides written notice to the Interconnection Customer within 3 Business Days after the commissioning tests have been completed. Such notice may be provided via electronic mail.
- 3. If LPEA waives its right to witness the commissioning tests, or if the commissioning tests are successfully completed in the sole judgment of LPEA, LPEA shall provide the Interconnection Customer an operational approval letter within 3 Business Days after notification that the commissioning test has been successfully completed. This letter may be provided via electronic mail.

# E. Confidentiality

- 1. Confidential information means any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential". All design, operating specifications and metering data provided by the Interconnection Customer shall be deemed confidential information regardless of whether it is clearly marked or otherwise designated as such.
- 2. Confidential information does not include information previously in the public domain, required to be publicly submitted or divulged by governmental authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce an agreement between the Parties. Each Party receiving confidential information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under



agreements between the parties, or to fulfill legal or regulatory requirements.

- a. Each Party shall employ at least the same standard of care to protect confidential information obtained from the other Party as it employs to protect its own confidential information.
- b. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of confidential information without bond or proof of damages and may seek other remedies available at law or in equity for breach of this provision.
- 3. Notwithstanding anything in Section 5.E to the contrary, if the Colorado Public Utilities Commission during an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence, the Party shall provide the requested information to the Colorado Public Utilities Commission, within the time provided for in the request for information. In providing the information to the Colorado Public Utilities Commission, the Party may request that the information be treated as confidential and non-public by the Colorado Public Utilities Commission and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party prior to the release of confidential information to the Colorado Public Utilities Commission. The Party shall notify the other Party when it is notified by the Colorado Public Utilities Commission that a request to release confidential information has been received by the Colorado Public Utilities Commission, at which time either of the Parties may respond before such information would be made public.

# F. Comparability

LPEA shall receive, process, and analyze all Interconnection Requests in a timely manner as set forth in this procedure. LPEA shall use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Interconnection Resource is owned or operated by LPEA, its subsidiaries or affiliates, or others.

# G. Record Retention

LPEA shall maintain records for 3 years, subject to audit, of all Interconnection Requests received under these SIRIP, the time frames required to complete Interconnection Request approvals and disapprovals, and justification for the actions taken on each Interconnection Request.



#### H. Interconnection Agreement

- 1. Prior to the Interconnection Customer's operation of an Interconnection Resource an Interconnection Customer must enter into an Interconnection Agreement with LPEA.
- 2. After receiving an Interconnection Agreement from LPEA, the Interconnection Customer shall have 30 Business Days to sign and return the Interconnection Agreement, or request that LPEA file an unexecuted agreement with the Colorado Public Utilities Commission.
- 3. If the Interconnection Customer does not sign the Interconnection Agreement or ask that it be filed unexecuted within 30 Business Days, the Interconnection Request shall be deemed withdrawn.
- 4. After the Interconnection Agreement is signed by Interconnection Customer and LPEA, the interconnection of the Interconnection Resource shall proceed under the provisions of the Interconnection Agreement.
- 5. In case of any conflict between the specific terms of the Interconnection Agreement and this procedure and/or guidelines, the terms of the Interconnection Agreement shall govern.

#### I. Coordination with Affected Systems

LPEA shall coordinate the conduct of any studies required to determine the impact of the Interconnection Request on Affected Systems with Affected System operators and, if possible, include those results in its applicable interconnection study (e.g., feasibility study, system impact study, or facilities study) within the time frame specified in these procedures. LPEA will include such Affected System operators in all meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with LPEA in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### J. Capacity of the Interconnection Resource

- 1. If the Interconnection Request is for an increase in capacity for an existing Interconnection Resource, the Interconnection Request shall be evaluated on the basis of the new total capacity of the Interconnection Resource.
- 2. If the Interconnection Request is for an Interconnection Resource that includes multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Interconnection, the Interconnection Request shall be evaluated on the basis of



the aggregate capacity of the multiple devices except as provided in Section 1.C.3.

3. The Interconnection Request shall be evaluated using the maximum rated capacity of the Interconnection Resource except as provided in Section 1.C.3.

#### K. Insurance

- Certificates of Insurance evidencing the requisite coverage and provision(s) shall be furnished to LPEA prior to the date of interconnection of the Interconnection Resource. LPEA shall be permitted to periodically obtain proof of current insurance coverage from the Interconnection Customer to verify proper liability insurance coverage. Interconnection Customers will not be allowed to commence or continue interconnected operations unless evidence is provided that satisfactory insurance coverage is in effect at all times.
- 2. Colorado governmental entities that self-insure against liability in amounts above those required in paragraphs 6.K.3 and 6.K.4 for interconnection resources up to 2 MW or to the replacement value of the interconnection resources for those interconnection resources above 2 MW, shall not be required to purchase additional insurance or to add the utility as an additional insured to any policy, nor shall they be obligated to indemnify the utility, though they shall be liable for any negligent or intentional act or omission of the municipality, its employees, contractors, subcontractors, or agents.
- 3. Inverter-based Systems
  - a. For systems of 1 MW or less, the Interconnection Customer is not required to maintain or keep in effect liability insurance.
  - b. For systems above 1 MW and up to 5 MW, the Interconnection Customer, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 for each occurrence.
  - c. For systems above 5 MW, the Interconnection Customer, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 for each occurrence.
- 4. Non-inverter-based Systems
  - a. For systems of 50 kW or less, the Interconnection Customer is not required to maintain or keep in effect liability insurance.
  - b. For systems above 50 kW and up to 500 kW, the Interconnection Customer at its own expense shall secure and maintain in effect during the term of the agreement liability



insurance with a combined single limit for bodily injury and property damage of not less than \$500,000 for each occurrence.

- c. For systems above 500 kW and up to 2 MW, the Interconnection Customer, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 for each occurrence.
- d. For systems above 2 MW and up to 5 MW, the Interconnection Customer, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$2,000,000 for each occurrence.
- e. For systems above 5 MW, the Interconnection Customer, at its own expense, shall secure and maintain in effect during the term of the agreement liability insurance with a combined single limit for bodily injury and property damage of not less than \$3,000,000 for each occurrence.

#### L. Maintenance

Interconnection Customers shall maintain their equipment in good working order. LPEA reserves the right to inspect Interconnection Customer's facilities upon reasonable notice or without notice other than by a phone call or phone message whenever it appears that an Interconnection Customer is operating in a manner hazardous to LPEA system integrity and/or customer safety. Functional testing of all circuit breakers, relays and transformers must be performed yearly at the Interconnection Customer's expense. Installations must have a full relay calibration check performed every five years or less by qualified personnel and Certified test reports are to be sent to LPEA's designated representative.



# Section 7. Miscellaneous

#### A. Entire Document

These Procedures, the Interconnection Agreement, Feasibility Study Agreement, System Impact Study Agreement, Facilities Study Agreement, the Interconnection Request forms, and the LPEA Membership Agreement, if applicable, together with all attachments hereto and thereto, constitute the entire and sole agreement with respect to the interconnection of Interconnection Resources to LPEA's System. All prior negotiations, representations, understandings, or agreements are not part of these Procedures, including attachments hereto, and shall have no force or effect. Any waiver by LPEA of any obligation under these Procedures, including attachments hereto, must be in writing. No such waiver shall be construed or deemed to be a waiver of any other provision or condition of this SIRIP, nor a waiver of subsequent breach of the same provision or condition.

# B. Severability

If any provision of these Procedures or the application of any such provision to any Person or circumstance shall be declared to be invalid, unenforceable, or void by a regulatory body or court of competent jurisdiction, such decision shall not have the effect of invalidating or voiding the remainder of these Procedures.

# C. Governing Law

These Procedures shall be construed in accordance with, and shall be governed by, the laws of the United States and State of Colorado, without giving effect to the principles of conflict of laws thereof.

# D. Amendments

To the maximum extent permitted by applicable law, LPEA may amend these Procedures without notice to any Person; provided, however, any such amendment shall not impact any Interconnection Requests submitted prior to the effective date of such amendment.

#### Attachment 1 - Glossary of Terms

**Affected System** – means an electric system other than LPEA's system that may be affected by the proposed interconnection.

Business Day – Monday through Friday, excluding federally recognized holidays.

**Certified** - means an inverter-based Interconnection Resource no larger than 5 MW that employs equipment or systems certified by a Nationally Recognized Testing Laboratory (NRTL) for continuous utility interactive operation before the Interconnection Request is submitted to LPEA. The NRTL must be recognized by the Occupational Safety and Health Administration (OSHA) NRTL Program. The current codes, standards, and certification requirements applicable to such facilities are provided in Attachments 2 and 3 of this SIRIP.

**Commission** - means the Colorado Public Utilities Commission or any successor organization.

**Customer Agreement-**an LPEA form that is part of the Interconnection Request for Level 1 and Level 2 Process. It is used to demonstrate site control and authorize a third party to act on behalf of an Interconnection Customer.

**Distribution System** – LPEA's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries. The voltage level at which LPEA's Distribution System operates is 7.2/12.47 kV.

**Distribution Upgrades** – The additions, modifications, and upgrades to LPEA's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Interconnection Resource and render the electric service necessary to affect the Interconnection Customer's operation of on-site generation. Distribution Upgrades shall not include Interconnection Facilities.

Highly Seasonal Circuit – A circuit with a ratio of annual peak load to off-season peak load greater than 6.

**Interconnection Agreement** – means an agreement that sets forth the contractual conditions under which LPEA and the Interconnection Customer agree to interconnect the Interconnection Resource to LPEA's System pursuant to the Level 1 Process, Level 2 Process, or Level 3 Process contained in this SIRIP.

**Interconnection Application** –means an application used in the Level 1 and Level 2 Process in which an Interconnection Customer or a party authorized to act on behalf of an Interconnection Customer communicates all requested information about the proposed Interconnection Resource.

**Interconnection Customer** – means any person or entity, including any affiliates of any entity, proposing to interconnect its Interconnection Resource with LPEA's System.

**Interconnection Facilities** – means all facilities and equipment between the Interconnection Resource and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Interconnection Resource to LPEA's system. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Upgrades.

Interconnection Request - The Interconnection Customer's request to interconnect a new

Interconnection Resource, or to increase the capacity of, or make a material modification to the operating characteristics of, an existing Interconnection Resource that is interconnected with LPEA's System. For the Level 1 and Level 2 Processes the Interconnection Request includes the Customer Agreement form, Interconnection Application and all required supporting documentation.

**Interconnection Resource** – means the Interconnection Customer's source of electric power connected to LPEA's System, including retail renewable distributed generation, other small generation facilities for the production of electricity, energy storage systems, bidirectional storage, electric vehicle chargers with vehicle to grid, vehicle to home, vehicle to building or a combination of any of these elements as identified in the Interconnection Request, but shall not include the Interconnection Facilities not owned by the Interconnection Customer. This definition is inclusive of an interconnection system or a supplemental device that is necessary for compliance with IEEE Standard 1547-2018.

**Interconnection Standards** –means LPEA's requirements for Interconnection Resource system design, installation, protection equipment, metering equipment, inverter settings and any other necessary elements in order for LPEA to maintain safe and reliable service to all members.

**Level 1 Process (or 25 kW AC Inverter Process)** - means LPEA's procedure for evaluating an Interconnection Request for a Certified inverter-based Interconnection Resource where the total nameplate generating capacity connected at one meter location is twenty-five (25) kW AC or less.

**Level 2 Process (or Fast Track Process)** - means LPEA's procedure for evaluating an Interconnection Request for a Certified inverter-based Interconnection Resource where the total nameplate generating capacity connected at one meter location is between 25 kW AC and 5 MW AC or a non-inverter based generating facility no larger than 2 MW AC

**Level 3 Process** - means LPEA's procedure for evaluating an Interconnection Request for an Interconnection Resource larger than 5 MW AC but no larger than 10 MW AC, a Small Generating Facility that is not Certified, or a Small Generating Facility that does not pass the Level 1 or Level 2 Processes.

**Line Section** – means that portion of LPEA's electric delivery system that is connected to a Customer and bounded by automatic sectionalizing devices or the end of the distribution line. A fuse is not an automatic sectionalizing device.

**LPEA** – means the La Plata Electric Association, Inc., a Colorado cooperative electric association, and any successor entity thereto.

**Mainline** – For the purpose of qualifying Fast Track eligibility of a proposed interconnection resource, this is the three-phase backbone of a distribution circuit with adequate capacity to support the proposed resource as determined by LPEA pursuant to the voltage and location requirements of Section 3.A.2 ("Level 2 Process Eligibility").

**Material Modification** – means a modification that has a material impact on the cost or timing of processing an application with a later queue priority date or a change in the point of interconnection. A material modification does not include, for example: a change of ownership of an interconnection resource; changes to the address of the generating facility, so long as the generating facility remains on the same parcel; a change or replacement of interconnection resource that is a like-kind substitution in size, ratings, impedances, efficiencies, or capabilities of the equipment specified in the original

application or a reduction in the capacity of the interconnection resource of 10% or less.

**Minimum Daytime Loading** – The lowest daily load of the year on the Line Section. When the Interconnection Resource is a PV system, the hours between 10 a.m. to 4 p.m. will be used for fixed panel systems and the hours between 8 a.m. to 6 p.m. will be used for PV systems utilizing tracking systems.

**Minor Modification** – means modifications to LPEA's distribution system or to the interconnection facilities that do not have a material impact on the cost or on the timing of an interconnection request.

**Non-Export Process** – The process for evaluating Interconnection Resources that are designed to not export power to LPEA's System or the transmission system within LPEA's service territory.

Party or Parties – LPEA, Interconnection Customer or any combination thereof.

**Point of Interconnection** – The physical point at which the Interconnection Facilities electrically connect with LPEA's System.

**Queue Position** – The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests that is established based upon the date and time of receipt of the valid Interconnection Request by LPEA.

**Screens** - means the criteria that an Interconnection Request must meet under the Level 1 Process or the Level 2 Process before LPEA is obligated to interconnect the Interconnection Resource pursuant to the terms of this SIRIP and Interconnection Agreement.

**Study Process** – The procedure for evaluating an Interconnection Request that includes the Level 3 scoping meeting, feasibility study, system impact study, and facilities study.

**System** – The facilities owned, controlled, or operated by LPEA that are used to provide electric service to ultimate usage points such as homes and industries inclusive of distribution and transmission.

**Upgrades** – The required additions and modifications to LPEA's System at or beyond the Point of Interconnection. Upgrades do not include Interconnection Facilities.

#### Attachment 2 - Certification Codes and Standards

In the event there is a conflict with this list and the Authority Having Jurisdiction (AHJ), the most recent version adopted by the AHJ shall be used.

- ANSI C84.1-2011 Electric Power Systems and Equipment Voltage Ratings (60 Hertz)
- 2. IEEE Std C37.90.1-2012, IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems
- 3. IEEE Std C37.90.2-2004, IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers
- 4. IEEE Std C37.108-2021, IEEE Guide for Protection of Secondary Network Systems
- 5. IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors
- 6. IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits
- 7. IEEE Std C62.45-2002, IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits
- 8. IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms
- 9. IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
- 10. IEEE Std 929-2000, IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems
- 11. IEEE Std 1453-2015, IEEE Recommended Practice for the Analysis of Fluctuating Installations on Power Systems
- 12. IEEE Std 1547-2018 IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces (including use of IEEE 1547.1 testing protocols to establish conformity)
- 13. NEMA MG 1-2016, Motors and Generators.
- 14. NFPA 70-2020, National Electrical Code
- 15. UL 1741 Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources, Edition 2

#### Attachment 3 - Certification of Interconnection Resource Equipment Packages

- 1. Interconnection Resource equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation only if (1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards listed in Attachment 2 by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment, (2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and (3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with Interconnection Customer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2. The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3. Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the Parties to the interconnection nor follow-up production testing by the NRTL.
- 4. If the certified equipment package includes only interface components, including, without limitation, switchgear, inverters, or other interface devices, then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5. Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the Interconnection Customer side of the Point of Interconnection shall be required to meet the requirements of this interconnection procedure.
- 6. An equipment package does not include equipment provided by LPEA