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ORIGINAL

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June 10, 2016

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Re: Notice of Filing
Joint Comments of Tucson Electric Power Company and UNS Electric, Inc.
In the Matter of the Notice of Proposed Rulemaking Regarding Interconnection of Distributed Generation Facilities
(Docket No. RE-00000A-07-0609)

In connection with the technical workshop scheduled for June 15, 2016, in the above referenced docket, Tucson Electric Power Company and UNS Electric, Inc. hereby submit the attached Joint Comments on the draft rules, along with a redline mark-up of suggested revisions in **Exhibit A**, and a clean revised version in **Exhibit B**.

Sincerely,

Bradley Carroll
Assistant General Counsel

Attachments – Exhibit A – Redline version
Exhibit B – Clean version

Tucson Electric Power Company and UNS Electric, Inc.

Joint Comments for June 15, 2016 Technical Workshop
Rulemaking Regarding Interconnection of Distributed Generation Facilities
(Docket No. RE-00000A-07-0609)

Tucson Electric Power Company and UNS Electric, Inc. (together, the "Companies") hereby submit these joint comments in response to Staff's request during the April 13, 2016 technical workshop ("April 2016 Technical Workshop") held in the above referenced docket. These comments supplement the Companies' initial redline submission to the Draft Rules on July 24, 2015 pursuant to a request for informal comment.

The Companies appreciate the opportunity to provide suggested redline comments to the proposed rules for Interconnection of Distributed Generation Facilities ("Draft Rules"). Attached as **Exhibit A** and **Exhibit B** are the Companies' suggested redline and clean version changes for discussion at the workshop scheduled for June 15, 2016 ("June 2016 Technical Workshop"). Some suggested revisions for consideration include:

- Definitional changes for Clearance, Customer, Customer Interconnection Facilities, Good Utility Practice, Emergency Condition, Supplemental Review, Utility, Utility Owned Interconnection Facilities (R14-2-2601 and R14-2-2605)
- Application of the regulations to energy storage facilities (R14-2-2604)
- Requirement for a disconnect switch and advanced inverter (R14-2-2604)
- Consistent use of "good faith cost estimates" in lieu of "reasonable estimates" and "Business Day" instead of day or calendar day
- Suggested interconnection manual content requirements (R14-2-2605) and elimination of annual filing and review (R14-2-2622)
- Consolidation into the interconnection manual of the utility specific technical requirements such as the list of applicable codes and standards, operating criteria, advanced inverter settings, communication, labeling, insurance etc. (R14-2-2605)
- Requirement for customer compliance with interconnection manual and satisfaction of utility safety concerns as a condition to the interconnection (R14-2-2605)

- Modified requirements for disconnection (R14-2-2615)
- Modification and re-examination of the level/tracks capacity thresholds and timelines for review and action (R14-2-2616)
- Streamline and consolidation of the interconnection application process steps (agreement, corrections, notification, inspection and testing, etc.) (R-14-2-2611 and R14-2-2618)
- Consolidation of fees and costs as separate provision (R14-2-26XX)

As discussed in the April 2016 Technical Workshop, the Companies believe that it is critical to safety, reliability and efficient operations to allow each utility to outline their technical requirements, timeframes for ensuring action on the application, and study and non-study track processes in each utility's interconnection manual. We have proposed some potential revisions in line with this approach.

The Companies would also like to take this opportunity to provide some high level comments to the discussion topics from the April 2016 Technical Workshop. The Companies' comments are organized by topic below.

Requirement for a Disconnect Switch

As discussed in the April 2016 Technical Workshop, the Companies suggest that the regulations should include the requirement for a disconnect switch to be installed on the customer's Generating Facilities for the safety of employees, customers, the general public and first responders. The disconnect switch should be accessible to company personnel and should meet all applicable requirements including NEC and NFPA 70E.

Requirement for Advanced Inverters

The Companies support the requirement for advanced inverters. Customer owned advanced inverters should have local autonomous control in accordance with the utility's interconnection manual. In addition to autonomous settings, Company owned advanced inverters should be capable of full integration of communications and control functions for additional voltage support and curtailment needs. Under no circumstance would the Companies want to

control a customer or third party-owned advanced inverter without significant indemnification provisions.

Applicability of Draft Rules to Energy Storage

Energy storage should be included in these distribution interconnection requirements. The Companies' attached redline suggests that all energy storage facilities should follow the study track process to ensure the safety and reliability of the distribution system. The study track offers adequate time for proper technical evaluation and integration of energy storage technologies. The study track allows the utility to address the following concerns:

- Energy storage can operate as both a generation source and load
- Energy storage is a dispatch-able resource
- Energy storage may require additional system protection as these facilities have a greater potential of creating an island, impacting both the utility and customer facilities
- Energy storage coupled with other distributed generation introduces additional metering and protection requirements

Maximum Generating Facility System Size

All distributed generation interconnection requests are required to meet IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems. This standard specifically states that it applies to system sizes up to 10MW. While all projects with a system capacity above 1MWac should be subjected to the study track process, a 10MW system capacity limit is generally acceptable for interconnection requests to the Companies 13.8kV distribution system. The Companies require the Application to follow a study track for any generating facilities above 1 MW. For systems between of 1MW or less, either the Fast Track or Super Fast Track is an option.

Eligibility for Study and Non-Study Track Process

The Super Fast Track process should be utilized for small-scale, single-phase residential, inverter-based generation interconnection requests below 10kW as currently defined in the Draft Rules. The Super Fast Track process is created to minimize utility review time and ensure customers systems are interconnected in a timely manner. Typical residential distributed

generation systems in the Company's service territories follow the Super Fast Track category. Systems above this size should be subject to additional technical review as defined in the Fast Track process with potential Study Track evaluation if the review screens are not met.

Implementation of Pre-Application Mapping and Reporting

In addition to the uncertainty surrounding the efficacy of these tools, it would be very difficult for the Companies to provide pre-application mapping and reporting from a technical perspective. The tools that exist today in the marketplace for this purpose are either labor intensive and/or cost-prohibitive to create accurate models for analysis, and they do not they have an extensive performance history. Furthermore, the Companies have concerns about sharing potentially confidential and sensitive customer/Company data in a public forum.

Market Opportunity for Advanced Inverters and the Aggregation of Distributed Energy Resources

The Companies find it difficult to analyze the value that VAR control or limiting distributed generation output might bring to an organized market. Distributed generation output could be aggregated and marketed in a wholesale transaction, however transmission and other system constraints, and the related costs, must be considered. The aggregator must also ensure energy is scheduled and tagged in accordance with all applicable rules and procedures, similar to other wholesale transactions.

Conclusion

The Companies look forward to participating in the June 2016 Technical Workshop. The Companies suggest that following the workshops and Staff's review of all of the comments submitted by stakeholders, that Staff issue a revised draft of the Draft Rules for comment prior to submittal to the Commission for formal rulemaking proceedings.

Exhibit A

EXHIBIT A – TEP / UNSE Redline Version – Draft DG Interconnection Rules
Docket No. RE-00000A-07-0609
June 10, 2016

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION
CHAPTER 2. CORPORATION COMMISSION
FIXED UTILITIES
ARTICLE 26. INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

R14-2-2601. Definitions

R14-2-2602. Applicability

R14-2-~~2603. Types of Generating Facilities~~

~~R14-2-~~2604. Customer Rights and Responsibilities

R14-2-2605. Utility Rights and Responsibilities

R14-2-2606. Easements/Rights of Way

R14-2-2607. Insurance

R14-2-2608. Non-Circumvention

R14-2-2609. Designation of Contact Persons

R14-2-2610. Non-discrimination

R14-2-2611. Application Submission Requirements

R14-2-2612. Minor Modifications

R14-2-2613 Certification

R14-2-2614. No Additional Requirements

R14-2-2615 Disconnection from or Reconnection with the Distribution System

R14-2-2616. Summary of Interconnection Levels and Tracks

R14-2-2617. Screens

R14-2-2618. ~~Level 1 Super Fast Track~~Interconnection Application

R14-2-2619. ~~Level 2 Fast Track~~Inspection and Testing

R14-2-2620. ~~Level 3 Study Track~~Notification

R14-2-26xx Corrections

R14-2-26xx Interconnection Studies

R14-2-2621. Interconnection to a Secondary Spot Network System

R14-2-2622. Utility Reporting Requirements

R14-2-2601. Definitions

In this Article, unless otherwise specified:

1. "AC" means alternating current.
2. "ANSI" means American National Standards Institute.

XX "Advanced Inverter" means a system with capability of converting DC energy to AC energy and provides a TC/IP Ethernet interface for communications and control of system parameters via industry accepted protocols and standards.

3. "Application" means the Utility's standard form for applying to interconnect a Generating Facility with the Distribution System.
4. "Commission" means the Arizona Corporation Commission.
5. "Backfeed" means to energize a section of a Utility electric system that is supplied from a source other than its normal source.
6. "Business Day" means Monday through Friday, excluding federal and Arizona state holidays.
7. "Certified Equipment" means a specific generating and protective equipment system or systems that have been certified as meeting the requirements in R14-2-2613 relating to testing, operation, safety, and reliability by an entity approved by the Commission.
8. "CFR" means Code of Federal Regulations.

~~9. "Customer" means an electric consumer that generates electricity on the consumer's side of the Utility meter.~~

XX Clearance" means a statement, with documentation, from the Utility that said line or equipment is disconnected from all known sources of power and tagged, and that for safety purposes all proper precautionary measures have been taken and those workmen may proceed to inspect, test, and install grounds on the circuit.

9. "Customer" means a customer of the Utility who is the legal owner of the premises on which a Generating Facility is or will be located.

XX "Customer Interconnection Facilities" means facilities and equipment owned by Customer to connect the Generating Facility to the Utility's Distribution System.

10. "DC" means direct current.
11. "Disconnect Switch" means a device that the Customer ~~may be~~is required to install and maintain that is a visible open, manual, gang-operated, load break disconnect device, capable of being

locked in a visible open position by a standard Utility padlock that will completely isolate the Customer's Generating Facility from the Utility grid. If the voltage is over 500 volts, it must be capable of being grounded on the Utility side.

12. "Distributed Generation" means any type of Customer electrical generator, static inverter, or Generating Facility interconnected with the Distribution System that either has the capability of being operated in electrical parallel with the Distribution System or can feed a Customer load that can also be fed by the Distribution System.
13. "Distribution System" means the infrastructure constructed, maintained, and operated by a Utility to deliver electric service to retail ~~consumers.~~Customers for voltage classes set forth in the Interconnection Manual.

~~14. "~~XX "Emergency Condition" means a condition or situation that:

(a) In the judgment of the person making the claim, is imminently likely to endanger life or property, or is necessary to protect persons, or third parties' property from damage or interference caused by the Generating Facility or improperly operating protective devices;

(b) That is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on or damage to the security or operation of the Generating Facility, Buyer's Interconnection Facilities, Buyer's Distribution System, Utilities Interconnection Facilities.

XX Facilities Study" means a comprehensive analysis of the actual construction needed to take place based on the outcome of the System Impact Study.

15. "Fault Current" means the level of current that can flow if a short circuit is applied to a voltage source.
16. "Feasibility Study" means a preliminary review of the potential impacts on the Distribution System that will result from the proposed Interconnection.
17. "Generating Facility" means all or part of the Customer's electrical generator or inverter, including energy storage systems, together with all protective, safety, and associated equipment necessary to produce electric power at the Customer's facility. A Generating Facility also includes any QF.
18. "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry in the United States during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of

the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. ~~Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.~~

19. "IEEE" means The Institute of Electrical and Electronic Engineers.
20. "Interconnection Agreement" means ~~an~~a Utility's specific agreement, together with appendices, signed between the Utility and the Customer, covering the terms and conditions governing the Interconnection and operation of the Generating Facility with the Utility.
21. "Interconnection" means the physical connection of a Generating Facility to the Distribution System.
22. "Interconnection Manual" means a separate document developed and maintained by each Utility, made available on each Utility's web site, ~~and approved by the Commission,~~ containing detailed technical, safety, communication and protection requirements necessary to interconnect a Generating Facility to the Distribution System.
23. "Interconnection Study" means a study that may be undertaken by a Utility (or a Utility-designated third party) in response to its receipt of a completed Application. An Interconnection Study may include, but not be limited to, a Feasibility Study, a System Impact Study, and a Facilities Study.
24. "Island" means a condition in which a portion of a Distribution System is energized solely by one or more local electric power systems throughout the associated Point of Interconnection while that portion of the Distribution System is electrically separated from the rest of the Distribution System. An Island can be either intentional (planned) or unintentional (unplanned).
25. "kW" means kilowatt AC.
26. "MW" means megawatt AC.
27. "NEMA" means the National Electrical Manufacturers Association.
28. "NFPA" means the National Fire Protection Association.
29. "NRTL" means a Nationally Recognized Testing Laboratory.
30. "Parallel System" means the operation of a Generating Facility that is electrically interconnected to a bus common with the Distribution System, either on a momentary or continuous basis.

31. "Point of Interconnection" means the physical location where the Utility's service conductors are connected to the Customer's service conductors to allow parallel operation of the Generating Facility with the Distribution System.
32. "QF" means Qualifying Facility, any cogeneration or small power production facility that meets the criteria for size, fuel use, efficiency, and ownership as promulgated in 18 CFR, Chapter I, Part 292, Subpart B of the Federal Energy Regulatory Commission's Regulations.
33. "Radial Line" means a distribution line that originates from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.
34. "Relay" means an electric device that is designed to interpret input conditions in a prescribed manner and after specified conditions are met to respond to cause contact operation or similar abrupt change in associated electric control circuits.
35. "Secondary Spot Network System" means an AC power Distribution System in which a Customer is simultaneously served from three-phase, four-wire low-voltage (typically 480V) circuits supplied by two or more network transformers whose low-voltage terminals are connected to the low-voltage circuits through network protectors. The low voltage circuits do not have ties to adjacent or nearby secondary network systems. The Secondary Spot Network System has two or more high-voltage primary feeders. These primary feeders are either dedicated network feeders that serve only other network transformers, or a non-dedicated network feeder that serves radial transformers in addition to the network transformer, depending on network size and design. The system includes automatic protective devices and fuses intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining uninterrupted service to the ~~consumers~~Customers served from the low-voltage circuits.
36. "Separate System" means the operation of a Generating Facility that has no possibility of operating in parallel with the Distribution System.

XX "Supplemental Review" means providing the Utility with additional time and information to conduct additional analysis where full study is not necessary, such as for projects which may exceed minimum daytime load requirements.

37. "System Impact Study" means a full engineering review of all aspects of the Generating Facility's impact on the Distribution System, including power flow, Utility system protective device

coordination, generator protection schemes (if not certified), stability, voltage collapse, frequency impacts, and short circuit duty.

38. "UL" means Underwriters Laboratories Inc.

39. "Utility" means an electric ~~distribution~~power company that constructs, operates, and maintains ~~the~~its Distribution System for the receipt and/or delivery of electric power.

XX "Utility Owned Interconnection Facilities" means facilities and equipment installed by the Utility needed to connect the Generating Facility to the Distribution System, including any modifications, additions, protective devices, or system upgrades. Such protective devices promptly disconnect the Generating Facility from the Distribution System in the event of a power outage on the Distribution System.

R14-2-2602. Applicability

A. These regulations:

1. Apply to any Generating Facility with a power rating of 10 MW or less, at the discretion of the serving Utility and as specified in the Interconnection Manual, operating (or applying to operate) in parallel with a Distribution System~~, subject to Commission jurisdiction~~;
2. Establish ~~technical and~~ procedural requirements, terms, and conditions to promote the safe and effective parallel operation of a Generating Facility with the Distribution System;

~~3. Include provisions for interconnecting to a radial or Secondary Spot Network System; and~~

~~4. Include three distinct types of generators:~~

~~a. Solid-state or static inverters,~~

~~b. Induction machines, and~~

~~c. Synchronous machines.~~

B. The total capacity of an individual Generating Facility may exceed 10 MW; however, no more than 10 MW of a Generating Facility's capacity can be interconnected at a single Point of Interconnection.

~~C.~~ C. If necessary, a Utility may address deviations from these regulations required for Generating Facilities over 10 MW at a single Point of Interconnection in its respective Interconnection Manual.

D. The electric rates and schedules, terms and conditions of service, or other contract provisions governing the electric power sold by a Utility to an Arizona retail consumer are subject to the jurisdiction of the Commission. The Commission also has jurisdiction when the Utility purchases excess power from a QF under 18 CFR 292.303 and 18 CFR 292.306 (2004).

~~D~~E. The Federal Energy Regulatory Commission has jurisdiction over an Interconnection with facilities that are subject to the Utility's Open Access Transmission Tariff.

~~**R14-2-2603. Types of Generating Facilities**~~

~~Generating Facilities include induction and synchronous electrical generators as well as any type of electrical inverter capable of producing AC power. A Generating Facility may be operated in Parallel with the Distribution System (either on a continuous basis or momentarily), or as a Separate System with non-parallel load transfer between the two independent power systems.~~

~~A. Parallel System. The Generating Facility becomes an integral part of the Distribution System, and it must be considered in the electrical protection and operation of the Distribution System.~~

~~1. A Parallel System includes any type of Generating Facility that can electrically parallel with, or potentially Backfeed the Distribution System. Any Generating Facility using a closed transition type transfer switch or a multi-breaker transfer scheme, or an electrical inverter that can be configured or programmed to operate in an interactive mode, may be required to have a Relay to prevent potential Backfeed to the Distribution System, and is classified as a Parallel System. A continuous uninterruptible power supply, a unit without grid tie capability, and an islanding inverter technology are not considered a Parallel System provided it is not a potential Backfeed source to the Distribution System.~~

~~2~~F. The Utility has specific Interconnection, contractual, and inspection requirements that must be complied with and information that needs to be submitted for all interconnected Generating Facilities. These may include protective relaying, metering, special rate schedules, applicable safety devices, and information requirements as specified in the Interconnection Manual.

~~3. There are two sub-types of a Parallel System:~~

~~a. Momentary Parallel System. A Momentary Parallel System transfers electrical load between the Distribution System and the Generating Facility by means of a "make-before-break" transfer scheme. A Momentary Parallel System synchronizes the Generating Facility with the Distribution System for a period not to exceed 10 seconds for the purpose of uninterrupted load transfer. A Momentary Parallel System is useful for a Customer who wishes to have greater reliability of electric service without experiencing the momentary outage of service that occurs under a "break-before-make" transfer switch scheme. Additionally, this approach allows the~~

~~Customer to more effectively test the switchgear and generator with load during weekly and monthly testing.~~

~~b. Islandable System. An Islandable System is a Generating Facility interconnected to a bus common with the Distribution System, where the Generating Facility is designed to serve part of the Distribution System that has become or is purposefully separated from the rest of the Distribution System.~~

~~B. Separate System. A Separate System is one in which there is no possibility of electrically connecting or operating the Generating Facility in parallel with the Distribution System. The Customer's equipment must transfer load between the two power systems in an open transition or non-parallel mode. If the Customer claims a Separate System, the Utility may require verification that the transfer scheme meets the non-parallel requirements.~~

~~1. A Separate System used to supply part or all of the Customer's load during a Utility power outage must be connected to the Customer's wiring through a double throw, "break-before-make" transfer switch specifically designed and installed for that purpose. The transfer switch must be of a fail-safe design, which, under no circumstances, will allow the Generating Facility to electrically interconnect or parallel with the Distribution System. The transfer switch must always disconnect the Customer's load from the Distribution System prior to connecting it to the Generating Facility. Conversely, the transfer switch must also disconnect the load from the Generating Facility prior to re-connecting it with the Distribution system. These requirements apply to both actual emergency operations as well as any testing of the Generating Facility. All transfer switches and transfer schemes must be listed by an NRTL for the purpose as used, and also inspected and approved by the jurisdictional electrical inspection agency.~~

~~2. A portable generator is one sub-type of a Separate System. Portable generators are not designed to be connected to a building's permanent wiring system, and are not to be connected to any such wiring unless a permanent and approved transfer switch is used. Failure to use a transfer switch can result in Backfeed into the Distribution System. The transfer scheme must meet the non-parallel requirements.~~

G. These regulations shall not apply to energy storage systems owned, operated and maintained by the Utility.

R14-2-2604. Customer Rights and Responsibilities

A. A Customer has the right to submit an Interconnection Application to interconnect a Generating Facility less than or equal to 10 MW in size with the Distribution System. The Customer has the right to expect ~~prompt,~~ reasonable~~,~~ and professional responses from the Utility ~~at every step of~~during the Interconnection process. The Customer has the right to expect ~~reasonable~~good faith cost estimates, outlines of the proposed work, supporting data, and justification for proposed work before the Utility undertakes any studies or system upgrades to accommodate the Generating Facility.

B. The Customer has the responsibility of disclosing to the Utility items specified herein on the Generating Facility and its operation. The Customer also has the responsibility of ensuring that:

1. The Generating Facility meets all minimum safety and protection requirements outlined in these provisions and the Utility's Interconnection Manual;
2. The Generating Facility meets all applicable construction codes, safety codes, electric codes, laws, and requirements of government agencies having jurisdiction;
3. All the necessary protection equipment is installed and operated to protect the Generating Facility, Utility personnel, the public, and the Distribution System;
4. The Generating Facility design, installation, maintenance, and operation ~~reasonably~~ minimizes the likelihood of causing a malfunction or other disturbance, damaging, or otherwise impairing the Distribution System;
5. The Generating Facility does not adversely affect the quality of service to other consumers (but no more or less than the present standard of care observed by regular Utility/consumer connections);
   xx The Generation Facility meets specific operating criteria as outlined in each Utility's Interconnection Manual;
6. The Generating Facility ~~minimally hampers~~does not hamper efforts to restore a feeder to service (specifically when a ~~clearance~~Clearance is required);
7. The Generating Facility is maintained in accordance with applicable manufacturers' maintenance schedule; and
8. The Utility is notified of any emergency or hazardous condition or occurrence with the Generating Facility, which could affect safe operation of the Distribution System. ~~(This notification can be through electronic communication.)~~

10. The Customer has complied with these rules, the Utility's Interconnection Manual, all applicable tariffs, rate schedules and the Utility's service requirements.

11. The Customer has installed and agrees to maintain a visual-open, manually operated, load break Disconnect Switch that will completely open and isolate all ungrounded conductors of the Generating Facility from the Distribution System. For multi-phase systems, the Disconnect Switch shall be gang-operated. The Customer shall not remove or tamper with any locks on the Disconnect Switch,

12. The Customer's Generating Facility includes an Advanced Inverter based technology at the AC output range from 1kW to 10MW level which is capable of advanced grid support features as set forth in the Interconnection Manual, including but not limited to the following:

a. Volt/Var Mode – Provide volt/var control through dynamic reactive power injection through autonomous responses to local voltage measurements.

b. Fixed Power Factor - Provide reactive power by a fixed power factor

c. Anti-islanding - Support anti-islanding to trip off under extended anomalous conditions

d. Low/High Voltage Ride-through (LHVRT) - Provide ride-through of low/high voltage excursions beyond normal limits

e. Low/High Frequency ride-through (LHFRT) - Provide ride-through of low/high frequency excursions beyond normal limits

f. Ramping

g. Soft-Start Reconnection - Reconnect after grid power is restored

h. Remote ON/OFF

i. Power Curtailment – 0% to 100%

C. The Customer is responsible for designing, installing, operating and maintaining all Interconnection facilities required ~~to be installed~~ by the Utility's Interconnection Manual to interconnect the Generating Facility to the Distribution system. ~~These may~~Such facilities shall be located on the Customer's premises and shall include all equipment as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection. These include connection, transformation, switching, protective relaying, metering, Disconnect Switch, communication and safety equipment, and any other requirements as outlined in this Article or other special items specified by the Utility. All such Interconnection facilities are to be installed ~~by the~~

~~Customer~~in accordance with the Utility's Interconnection Manual at ~~its~~the sole expense~~.~~ of the Customer.

D. The Customer, or Customer's agent, shall own and be responsible for designing, installing, operating and maintaining control and protective devices, in addition to minimum protective devices and relays specified in the Utility's Interconnection Manual, to protect its facilities from abnormal operating conditions such as, but not limited to, electric overloading, abnormal voltages and frequencies, and Fault Currents. Such protective devices must promptly disconnect the Generating Facility from the Distribution System in the event of a power outage on the Distribution System. The Customer shall also own and be responsible for designing, installing, operating and maintaining Customer Interconnection facilities on the Customer's premises as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection.

E. In the event that additional facilities are required to be installed on the Distribution System to accommodate the Customer's generation, the Utility will install, replace, and maintain such facilities at the Customer's expense. The Utility shall provide notice to the Customer of intent to install such facilities ~~early~~following completion of studies as identified in the ~~process.~~study track. A Facility Study may be required to further identify the costs and scope associated with any proposed work and required Utility Owned Interconnection Facilities. The Customer is not responsible for Utility upgrades for ~~other consumers~~the public unrelated to the Generating Facility installation.

F. Customers interconnecting a Generating Facility with the Utility system shall:

1. Sign an Interconnection Agreement, and all other applicable purchase, supply, and standby agreements; and
2. Comply with all applicable tariffs, rate schedules and Utility service requirements.

R14-2-2605. Utility Rights and Responsibilities

A. The Utility ~~is obligated to interconnect~~will specify its Rights and Responsibilities for interconnecting Generating Facilities~~,~~ to the Distribution System subject to the requirements set forth ~~in this Article and in each Utility's~~ Interconnection Manual.

B. The Interconnection Manual shall set forth the Utility's specific interconnection requirements for the following:

1. Any requirements for a safety disconnect

2. Forms of Interconnection Agreement and the Utility's process of reviewing and approving Applications
3. Application Study Track and Non-Study Track requirements
4. Metering requirements
5. Inspection and testing requirements
6. Utility's process for notifying the Customer of any corrections needed to the Application
7. Special rate schedules
8. Insurance requirements
9. Applicability of the Interconnection Manual to different Generating Facilities
10. General technical specifications and requirements
11. Power quality requirements
12. Voltage requirements
13. Telemetry requirements
14. Labeling requirements
15. Protective requirements
16. Data and information requirement
17. Any other requirements for Interconnection to the Distribution System.

C. The Utility has the right to expect ~~prompt,~~ reasonable, and professional responses from the Customer during the Interconnection process.

~~C~~D. Because the Utility is required to safeguard its system, other ~~consumers~~Customers, and the general public, the Utility has the right and responsibility to ~~ensure~~require that an interconnected Generating Facility:

1. Will not present any ~~unreasonable~~ hazards to Utility personnel, other ~~consumers,~~Customers or the public;
2. ~~Minimizes the possibility of~~ Will not cause disruption or deterioration of service to other Customers or the public;
3. Will not cause damage to the Utility and other ~~consumers'~~Customers' equipment; and
3. ~~Minimally hampers~~4. Does not hamper efforts to restore a feeder to service (specifically when a ~~clearance~~Clearance is required).

~~D~~E. The Utility will notify the Customer if there is any ~~evidence~~reason to believe that the Customer's Generating Facility operation causes disruption or deterioration of service to other ~~consumers~~Customers served from the Distribution System or if such operation causes damage to the Distribution system.

~~E~~F. The Utility has the responsibility to make its Interconnection Manual~~,~~ and standard Application forms and Interconnection Agreements readily available to Customers in print and online formats.

~~F. Before~~G. Following the receipt and review of Customer's completed Application, the Utility ~~undertakes any studies or system upgrades that will be charged~~may perform an engineering review to ~~the Customer~~determine if an Interconnection Study is required. As part of the Interconnection Study process, the Utility has the responsibility to provide a ~~detailed~~non-binding good faith cost estimate, outline of the proposed work, supporting data, and justification for the proposed work.

~~G~~H. The Utility ~~must show good cause why a Generating Facility that satisfies the requirements of~~may require certain Utility Owned Interconnection Facilities including but not limited to, protection, metering, communications, and safety equipment. All such Utility Owned Interconnection Facilities are to be installed in accordance with the Utility's Interconnection Manual ~~should not be approved~~.

I. A Utility cannot charge a Customer for ~~interconnected operation.~~

~~H. If facility upgrades are needed to accommodate the Generating Facility, a Utility shall reduce the charge of the upgrade to the Customer by the amount of benefits, if any, to the grid that are readily quantifiable by the Utility. In addition, a Utility cannot reject an Application on the basis of Distribution System conditions that are already deficient, or charge a Customer for facility upgrades that are overdue or soon to be required to ensure compliance with Good Utility Practice, except that applications~~planned facility upgrades except that Applications can be rejected in instances where reliability or safety would be further compromised by a Distributed Generation installation. A Utility shall not charge a Generating Facility Customer differently than ~~any other consumer~~the general public for facility upgrades in accordance with generally applicable Commission-approved tariffs.

J. The Utility has no obligation to install or maintain any lines or equipment on a Customer's side of the Point of Interconnection, except that Utility may install Utility Owned Interconnection Facilities. Only Utility authorized employees may make and energize the service connection between the Distribution System and the Customer's service entrance conductors.

K. The Utility has the right to deploy interconnection resources and Utility Interconnection Facilities to maintain grid affordability, reliability, safety and stability, and to require additional certification, training or experience in developing its Interconnection Manual requirements.

R14-2-2606. Easements/Rights of Way

Utility Right to Access Utility-Owned Facilities and Equipment. Where an easement or right of way does not exist, but is required to accommodate the Interconnection, the Customer must provide suitable easements or rights of way, in the Utility's name, on the premises owned, leased, or otherwise controlled by the Customer. If the required easement or right of way is on another's property, the Customer must obtain and provide to the Utility a suitable easement or right of way, in the Utility's name, at the Customer's sole cost and in sufficient time to comply with the Interconnection Agreement requirements. ~~The Utility shall use reasonable efforts to utilize existing easements to accommodate the Interconnection to~~To the extent possible and ~~shall assist~~determined to be in the best interests of the Utility and the Customer ~~in securing necessary easements at the Customer's expense that do not exist but are necessary to accommodate,~~ the ~~Interconnection.~~Utility may utilize existing easements.

R14-2-2607. Insurance

A. The ~~Customer is not required~~Customer's obligation to provide general liability insurance coverage as a condition for Interconnection~~. Due~~ due to the risk of incurring damages~~, it is recommended that every~~ and potential Emergency Conditions shall be set forth in the Interconnection Manual based on size and technology. Every Customer shall protect itself with insurance or other suitable financial instrument or self-insurance sufficient to meet its construction, operating, and liability responsibilities. At no time shall the Utility require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance provider, agent, solicitor, or broker.

B. The inability of the Utility to require the Customer to provide general liability insurance coverage for operation of the Generating Facility is not a waiver of any rights the Utility may have to pursue remedies at law against the Customer to recover damages.

R14-2-2608. Non-Circumvention

A Utility and its affiliates shall not use knowledge of proposed Distributed Generation projects submitted to it for Interconnection or study to initiate competing proposals to the Customer that offer either discounted rates in return for not installing the Distributed Generation, or offer competing Distributed Generation projects. Customers are not precluded from sharing information in their possession regarding a potential Distributed Generation project with a Utility or its affiliates, or from using information regarding a potential Distributed Generation project to negotiate a discounted rate or other mutually beneficial arrangement with a Utility or its affiliates. The Utility shall be permitted to inform the Customer of existing or pending (awaiting approval by the Commission) rate schedules that may economically benefit, economically disadvantage, or otherwise affect the Customer's project.

R14-2-2609. Designation of Contact Persons

A. Each Utility shall designate a person or persons to serve as the Utility's contact for all matters related to Distributed Generation Interconnection; identify to the Commission its Distributed Generation contact person; and provide convenient access through its web site to the names, telephone numbers, mailing addresses and electronic mail addresses for its Distributed Generation contact person or persons.

B. Each Customer applying for Interconnection shall designate a contact person or persons, and provide to the Utility the contact's name, telephone number, mailing address, and electronic mail addresses.

R14-2-2610. Non-discrimination

All Applications for Interconnection and parallel operation of Distributed Generation shall be processed by the Utility in a non-discriminatory manner.

R14-2-2611. Application Submission Requirements

The ~~Utility may require~~Utility's Interconnection Manual shall set forth the process for submitting an Application, all Application forms, Interconnection Study agreements forms, and the requirements for additional documentation be submitted with the Application. Each Utility's Application form shall specify what additional documentation is required. Additional documentation may include an electrical one-line diagram, an electrical three-line diagram, AC and DC control schematics, plant location

diagram, and site plan. ~~Upon request, the Utility shall provide the Customer with~~The Utility's Interconnection Manual may include, but shall not be limited to, sample diagrams that indicate the preferred level of detail and type of information required for a typical inverter-based system. For all Interconnections, the Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form.

A. The Utility shall provide the Customer notification within sixty (60) calendar days following the receipt of an Application of one of the following determinations:

1. The proposed Generating Facility design appears to meet all of the applicable Interconnection requirements, and no further studies, special protective requirements, or system modifications are required; or
2. The proposed Generating Facility has failed to meet one or more of the screens, but the initial review indicates that Supplemental Review may enable the Utility to determine that the Generating Facility can be interconnected consistent with safety, reliability, and power quality. In such case, the Utility shall offer to perform the Supplemental Review to determine whether minor modifications to the Distribution System (for example, changing meters, fuses, or relay settings) would enable the Interconnection to be made consistent with safety, reliability and power quality. The Utility shall provide to the Customer a non-binding, good faith estimate of the costs of such additional review, and/or such minor modifications. The Utility shall undertake the additional review or minor modifications only after the Customer consents to pay for the review and/or modifications. Such additional review will take place within twenty-one (21) Business Days after the Customer has submitted payment for the estimated costs; or
3. The Generating Facility cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility. In this case, the Interconnection proceeds along the Level 3 Study Track. All itemized costs and timelines for the studies are to be disclosed and agreed upon by the Utility and Customer prior to the start of each one. In addition, all studies are to be made available to the Customer within a reasonable timeframe after their completion.
4. The Application is incomplete or the proposed Generating Facility design has failed to meet one or more of the Interconnection requirements. The Utility shall provide an explanation of the reasons for the denial (in writing unless requested by the Customer), and shall specify what

additional information or modifications to the Generating Facility or Distribution System, if any, are required in order to obtain approval of the proposed design. The Customer shall either:

i. Within thirty (30) Business Days of notification, inform the Utility of its intent to proceed or not proceed with the project. If the Customer fails to notify the Utility within the specified time-frame, the Application may be withdrawn by the Utility.

ii. Submit required supplemental documents within thirty (30) Business Days of notification, along with any additional information and modifications to the Generating Facility. The Utility shall provide notification to the Customer within thirty (30) Business Days of submittal of supplemental documents informing customer of Application approval or if other corrections are needed.

5. The Application is denied. In this case, the Customer shall notify the Utility within twenty-one (21) Business Days whether or not it wishes to proceed with the Application. If the Customer does not wish to proceed with the project, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn. If the Customer wishes to proceed, then a new Application shall be submitted to the Utility for review and processing, along with any additional information and/or modifications to the Generating Facility.

B. Prior to Submitting Application, the Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation, or to schedule a scoping meeting to review the general overview of the proposed Generating Facility design and to provide the Utility general information on system conditions at the proposed Point of Interconnection. This meeting also allows the Utility and the Customer to discuss which studies are needed. The Utility and the 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.

R14-2-261XX. Fees and Costs.

A Utility may charge fees for the Application, Feasibility Study, Facilities Study, System Impact Study, and any additional reviews, including applicable tax gross ups. The Utility shall provide a non-binding good faith cost estimate of all fees and costs for any study to be performed or required engineering review.

If required, the Customer shall submit a deposit for the estimated fees and/or costs before a study or any additional review will be initiated. In addition, the Customer shall have the responsibility for any costs of Utility Owned Interconnection Facilities including replacement, maintenance, and equipment modifications necessary to accommodate the Customer's Interconnection. The Utility may charge a fee for an initial inspection or for a re-inspection if a tariff containing such a fee is approved by the Commission.

R14-2-2612. Minor Modifications

It is recognized that certain Applications may require minor modifications to the Generating Facility or the Application while they are being reviewed by the Utility~~. Such minor modifications to a~~ which do not have an impact on Customer's compliance with the Utility's Interconnection Manual. A pending Application ~~shall not require that it~~requiring modifications may be considered incomplete and treated as a new or separate Application.

R14-2-2613 Certification

A. In order to qualify as Certified Equipment for any Interconnection procedures, relevant equipment must comply with ~~the following~~applicable codes, guides, and standards~~:~~.

~~1. IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity);~~

~~2. IEEE 1547.1 Standard for Conformance Testing Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems;~~

~~3. UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems;~~

~~4. IEEE Std 929-2000 IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems;~~

~~5. NFPA 70 (2002), National Electrical Code;~~

~~6. IEEE Std C37.90.1-1989 (R1994), IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems;~~

~~7. IEEE Std C37.90.2 (1995), IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers;~~

~~8. IEEE Std C37.108-1989 (R2002), IEEE Guide for the Protection of Network Transformers;~~

~~9. IEEE Std C57.12.44-2000, IEEE Standard Requirements for Secondary Network Protectors;~~

~~10. IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits;~~

~~11. IEEE Std C62.45-1992 (R2002), IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits;~~

~~12. ANSI C84.1-1995 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz);~~

~~13. IEEE Std 100-2000, IEEE Standard Dictionary of Electrical and Electronic Terms~~

~~14. NEMA MG 1-1998, Motors and Small Resources, Revision 3;~~

~~15. IEEE Std 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems; and~~

~~16. NEMA MG 1-2003 (Rev 2004), Motors and Generators, Rev. 1.~~

B. In order to qualify as Certified Equipment, Generating Facility equipment proposed for use separately or packaged with other equipment in an Interconnection system must comply with the following requirements:

1. It has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards ~~referenced in R14-2-2613(A)~~ by any NRTL recognized by the U. S. Occupational Safety and Health Administration to test and certify Interconnection equipment pursuant to the relevant codes and standards~~ listed above~~;
2. It has been labeled and is publicly listed by such NRTL at the time of the Interconnection ~~application~~Application; and
3. Such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with Customer approval, the test data itself. The NRTL may make such information available on its web site and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

C. The 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.

~~**D.** Certified Equipment will not require further type-test review, testing, or additional equipment to meet the requirements of this Article and the Utility's Interconnection Manual.~~**D.** . Nothing herein shall preclude the need for project Interconnection review and approval by the Utility or on-site commissioning testing prior to the Interconnection nor follow-up production testing by the NRTL.

E. If the Certified Equipment includes only interface components (switchgear, inverters, or other interface devices), then a Customer must show, upon Utility's request, that the Generating Facility is compatible with the interface components and is consistent with the testing and listing specified for this type of Interconnection equipment.

F. Certified Equipment does not include equipment provided by the Utility.

R14-2-2614. No Additional Requirements

If a Generating Facility complies with all applicable requirements, a Utility may not require the Customer to install additional controls, or perform or pay for additional tests, in order to obtain approval to interconnect except as mutually agreed to by the parties or required by the Commission. Additional equipment may be installed by the Utility at its own expense.

R14-2-2615 Disconnection from or Reconnection with the Distribution System

A. A Utility may disconnect a Generating Facility from the Distribution System under the following conditions:

1. Expiration or termination of Interconnection Agreement. The Interconnection Agreement specifies the effective term and termination rights of the Utility and the Customer. Upon expiration or termination of the Interconnection Agreement with a Customer, in accordance with the terms of the agreement, the Utility may disconnect a Generating Facility.
2. Non-compliance with technical Interconnection requirements. A Utility may disconnect a Generating Facility if the facility is not in compliance with the technical requirements~~.~~ and the Utility's Interconnection Manual. Within ~~two business days~~ten (10) Business Days from the time the Customer notifies the Utility that the ~~facility~~Generating Facility has been restored to compliance with the technical requirements, the Utility shall have an inspector verify such compliance. Upon such verification, the ~~Customer~~Utility in coordination with the ~~Utility may~~Customer, will reconnect the ~~facility~~Generating Facility.
3. ~~System emergency. A~~Emergency Condition. . The Utility ~~may temporarily disconnect a Generating Facility without prior written notice in cases where continued Interconnection of~~ shall have unrestricted access to the Generating Facility ~~will endanger persons or property.~~to

immediately suspend interconnection service and to disconnect the Generating Facility in the event of an Emergency Condition.

3. During the forced outage of a Distribution System, the Utility may temporarily disconnect a Generating Facility to make immediate repairs on the Distribution System. When possible, the Utility shall provide the Customer with reasonable notice. The Utility shall reconnect the Generating Facility as ~~quickly~~soon as commercially practical.

4. Routine maintenance, repairs, and modifications. A Utility may disconnect a Generating Facility from the Distribution System with reasonable prior notice of a service interruption for routine maintenance, repairs, and system modifications. The Utility shall allow reconnection of the Generating Facility as ~~quickly~~soon as commercially practical following any such service interruption.

5. Absence of executed Interconnection Agreement. In order to interconnect a Generating Facility to a Distribution System, the Customer and the Utility must execute an Interconnection Agreement~~.~~ as set forth in the Interconnection Manual. The Utility may refuse to connect or may disconnect the Generating Facility if ~~an~~a properly executed Interconnection Agreement is not in effect~~.~~

B. The parties shall cooperate with each other to restore the Generating Facility and the Distribution System to their normal operating state as soon as practical.

C. Temporary disconnection by Customer. The Customer may temporarily disconnect its Generating Facility from the Distribution System at any time. Such temporary disconnection shall not be a termination of the Interconnection Agreement unless specified as such.

D. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.

E. Duration and Termination of the Interconnection Agreement. The Interconnection Agreement shall become effective on the effective date specified in the agreement and shall remain in effect thereafter unless and until:

1. It is terminated by mutual agreement of the parties;
2. It is replaced by another Interconnection Agreement with mutual consent of the parties;
3. It is terminated by either party pursuant to a breach or default of the agreement; or

4. The Customer terminates its Utility electric service and/or vacates or abandons the property on which the Generating Facility is located, or the Generating Facility, without mutual agreement of the parties.

F. Upon termination of the Interconnection Agreement, the Customer shall be responsible for ensuring that the Disconnect Switch is immediately opened, and the electrical conductors connecting the Generating Facility to the Distribution System are immediately lifted and permanently removed, so as to preclude any possibility of an inadvertent interconnected operation in the future. The Utility may inspect the Generating Facility to verify that it is permanently disconnected.

R14-2-2616. Summary of Interconnection ~~Levels~~Study and Non-Study Tracks

Interconnection Applications follow the interconnection levels and tracks set forth below, or as outlined in the Interconnection Manual. In all cases the Generating Facility is required to meet applicable local electric codes and standards, as well as comply with all terms and conditions of the Interconnection Manual and Interconnection Agreement.[1]

A. ~~Level 1~~ Super Fast Non-Study Track. Certified inverter-based facilities that have a power rating of 10 kW or less, are single phase, are interconnected on a Radial Line, and meet screens (E) and (F) in R14-2-2617, below. ~~Refer to R14-2-2618 for additional details.~~

B. ~~Level 2~~ Fast Track. Generating Facilities that have a power rating of ~~2~~1 MW or less, are interconnected on a Radial Line, and meet screens (A) through (I) in R14-2-2617~~. Refer to R14-2-2619 for additional details.~~

C. Study Track. Energy storage systems of all power ratings and Generating Facilities above 1 MW and below 10 MW. Interconnection Studies as set forth in R14-26XX -shall be required. . This Study Track is to be used for all Generating Facilities that do not meet the screening requirements for Super Fast Track or Fast Track. It is an in-depth engineering review of whatever aspects of generator performance and/or grid interaction the Utility deems necessary to study. More details shall be available in each Interconnection Manual. No review of the Generating Facility's protection equipment is required for generators that are certified, although the Utility may study the interface

[1] TEP/UNSE support flexibility to each utility to determine the study and non-study tracks best suited for that utility and to either have these tracks in the rules or the utility's interconnection manual.

between the Generating Facility and the Distribution System. ~~C. Level 3 Study Track. Generating Facilities that have a power rating of 10 MW or less that do not meet the criteria or screens for other Levels. Interconnection studies may be required. Refer to R14-2-2620 for additional details.~~

~~D. Distribution Networks. On an interim basis, certified inverter-based Generating Facilities that have a power rating of 10 kW or less will be allowed to be interconnected on a secondary spot network system and otherwise as approved by the Utility. Generating Facilities will only be interconnected on a trial, pilot basis, at the discretion of the Utility, under the Interconnection process set forth in the Utility's Interconnection Manual. Refer to R14-2-2621 for additional details.~~**D.**

R14-2-2617. Screens

A. For Interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 15% of the total circuit annual peak load as most recently measured at the substation or on a line section. In the case of generators certified to UL 1741 and IEEE 1547, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, or the end of the distribution line. For non-certified generators, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, a fused lateral, or the end of the distribution line. The aggregated generation, including the proposed Generating Facility, must also be less than 50% of the minimum daytime feeder or line section load, where these data are available, unless the minimum load is zero.

B. The proposed Generating Facility, and new motors associated with the proposed generator, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum Fault Current at any point on the Distribution System, including normal contingency conditions that may occur due to reconfiguration of the feeder or the distribution substation.

C. The proposed Generating Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or ~~consumer~~general equipment on the system, to exceed 90% of the short circuit interrupting capability; nor is the Interconnection proposed for a circuit that already exceeds 90% of the short circuit interrupting capability.

D. The proposed Generating Facility is interconnected to the Utility as shown in the table below:

Primary distribution line configuration	Interconnection to primary distribution line
Three-phase, three wire	If a three-phase or single-phase generator, Interconnection must be phase-to-phase
Three-phase, four wire	If a three-phase (effectively grounded) or single-phase generator, Interconnection must be line-to-neutral

E. If the proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, cannot exceed 10 kW, and the proposed generator must be listed to UL 1741.

F. If the proposed Generating Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

G. The proposed Generating Facility, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the generator proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level (69 kV or higher) busses from the Point of Interconnection).

H. The proposed Generating Facility's Point of Interconnection will not be on a transmission (~~69~~or subtransmission (46 kV or higher) line.

I. The proposed Generating Facility cannot exceed the capacity of the Customer's existing electrical service.

~~**Level 1 Super Fast Track**~~

~~**A.** The Level 1 Super Fast Track is available to Customers interconnecting either a single certified static inverter, with a continuous output power nameplate rating of 10 kW or less, or multiple certified static inverters with a combined continuous power nameplate rating of 10 kW or less, screen (E), to the Distribution System. The inverters must be UL 1741 listed, and certified to meet the shutdown protective functions (under/over voltage, under/over frequency and anti-islanding) specified in IEEE 929, screen (F). The Generating Facility must~~

~~pplication as to whether it is complete or incomplete.~~

~~a. If the Application is incomplete, the Utility will specify what information or material is necessary to complete the Application.~~

~~b. The Customer has 30 calendar days after receipt of such notification to submit the required information or materials (or request an extension), or the Application may be considered withdrawn.~~

~~3. Utility Reviews Application. Within 12 calendar days following the receipt of a complete Application, the Utility shall review the proposed Interconnection and notify the Customer of one of the following determinations:~~

~~a. The proposed Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted. If not pre-executed, the Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (4) below; or~~

~~b. The proposed Generating Facility design has failed to meet one or more of the Interconnection requirements, and the Application is denied. The Utility shall provide an explanation of the reasons for the denial (in writing, unless otherwise requested by the Customer), and specify what additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the proposed design.~~

~~i. If the Application is denied, the Customer shall notify the Utility within 21 calendar days whether or not it wishes to proceed with the project. If the Customer does not wish to proceed with the project, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn. If the Customer wishes to proceed with the project, then a new Application shall be submitted to the Utility for review and processing (Step (1) above is re-initiated), along with any additional information and modifications to the Generating Facility.~~

~~ii. Alternatively, the Customer may request processing under Level 2 Fast Track or Level 3 Study Track and shall provide any additional information requested by the Utility and necessary to process the request under Level 2 Fast Track or Level 3 Study Track.~~

~~4. Interconnection Agreement. If~~

R14-2-2618.Interconnection Application

I. ~~if~~ the Generating Facility meets all of the applicable ~~interconnection requirements and the Application is approved, then:~~

~~a. Within seven calendar days after the notice of Application approval, or following receipt of any "as built" or final diagrams from the Customer, the Utility sends to the Customer the appropriate Interconnection Agreement for review and signature. (This step may be omitted if~~ Interconnection and study requirements , and the Utility has received ~~a pre-executed Interconnection Agreement).~~the final design drawings, "as built" drawings and any final diagrams (as applicable), then:

~~b.~~ 1. The Utility shall send to the Customer ~~reviews, signs, and returns the~~within twelve (12) Business Days an executable Interconnection Agreement ~~to the Utility.~~, which shall include as an exhibit with a non-binding good faith estimated cost

~~c.~~ 2. The Customer ~~then completes~~shall review, sign, and return the Interconnection Agreement to the Utility and, pay any balance due for Interconnection studies or required deposits.

3. The Customer shall complete installation of the Generating Facility within ~~180 calendar days~~one-hundred twenty (120) Business Days after execution of the Interconnection Agreement, unless an extension is mutually agreed to by the parties, which extension shall not be unreasonably withheld. The Utility has the right to terminate any Interconnection Agreement, and the Application may be considered withdrawn in the event that this time-frame is exceeded without extension.

4. The Utility shall endeavor to complete any Distribution System modifications in accordance with the milestones set forth in the Interconnection Agreement, and if system upgrades are required, to employ commercially reasonable efforts to complete such system upgrades in accordance with the good faith estimate and the Interconnection Agreement.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties. Nothing in this process precludes the Customer from starting construction prior to contacting the Utility; however, the Customer accepts the risk of potentially needing to modify or substantially change the installation. The Utility time-frames contained herein do not include the time for the Customer to execute agreements or submit needed documentation. If at any point in the Level 2 Fast Track process, the

Customer does not submit requested materials necessary to process the Application, or submit applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdraw

C. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.

D. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.

~~5.~~

R14-2-2619 Inspection and Testing. The Customer will give the Utility at least ~~seven calendar days~~five (5) Business Days' notice to schedule the Utility site inspection and ~~inverter~~Advanced Inverter shutdown testing. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time. There will be no charge for one initial site inspection by the Utility.

~~a~~A. The Utility shall perform the site inspection and verify that the Generating Facility, as best as can be determined, is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:

i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;

ii. All Generating Facility equipment is properly labeled;

iii. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

iv. Inverter nameplate ratings are consistent with the information submitted to the Utility;

v. The Utility has unrestricted 24-hour access to the Disconnect Switch (if required), and the switch meets all applicable requirements;

vi. The inverter shuts down as required upon simulated loss of Utility voltage; and

vii. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.

~~b~~B. The Utility will normally before or at the time of the site inspection:

i. Install appropriate metering if required;

ii. Label all Utility equipment; and

iii. Ensure that the Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.

~~e~~C. The Utility ~~does not have~~has the right to fail a site inspection in the event that any of the above three requirements (metering, Utility equipment labeling, and the identification of the Generating Facility on the operating maps) are not in place at the time of the site inspection. The Utility ~~does have~~has the right to fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or as a result of any safety or protection violation.

~~6.~~

R14-2-2620 **Notification.** Immediately following completion of the site inspection and upon receipt of all final applicable signed Interconnection documents, the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:

~~a~~A. The Generating Facility is approved for parallel operation with the Distribution System per the agreed terms and conditions. Within one ~~business day~~(1) Business Day following such oral notification, the Utility shall provide the Customer with such notice in writing; or

~~b~~B. The Generating Facility has failed to meet one or more of the applicable requirements or a safety or protection violation has been identified, and the Generating Facility is not approved for parallel operation. The Utility must provide the reasons (in writing, unless otherwise requested by the Customer) for not approving parallel operation. Furthermore, the Utility has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from parallel operation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.

~~7.~~R14-2-26xx **Corrections.** In the event that the Generating Facility does not pass the initial Utility site inspection:

~~a~~A. The Customer must correct any outstanding issues and schedule a re-inspection. The Utility shall re-inspect upon ~~seven calendar days~~five (5) Business Days' notice from the Customer to verify that the deficiencies have been remedied. The Utility may charge a fee for each re-

inspection, if a tariff containing such a fee is approved by the Commission. Within one (1) business day following any site re-inspection, where the Utility approves parallel operation of the Generating Facility, the Utility shall provide written notification to the Customer that the Generation Facility is approved for parallel operation.

~~b~~B. If updated diagrams are required to reflect "as-built" conditions, the Customer must submit these to the Utility for review and approval within ~~12 calendar days~~ten (10) Business Days following the site inspection. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the revised diagrams for Customer review and signature.

R14-2-~~2619. Level 2 Fast Track~~

~~A. Level 2 Fast Track is available to Customers interconnecting a Generating Facility with a continuous output power nameplate rating of 2 MW or less to the Distribution System. In order to qualify for Level 2 Fast Track, the Generating Facility must meet screens (A) through (I) in R14-2-2617. The Generating Facility must also meet all applicable codes and standards, as well as comply with the Utility~~ **26xx. Interconnection** ~~and contractual requirements.~~**Studies**

~~B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties. Also, nothing in this process precludes the Customer from starting construction prior to contacting the Utility; however, in such case the Customer accepts the risk of potentially needing to modify or substantially change the installation.~~

~~C. The Level 2 Fast Track steps are as follows:~~

~~1. Prior to Submitting Application. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.~~

~~2. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. A Utility may not charge an application fee unless a tariff containing such a fee is approved by the Commission.~~

~~3. Application is Received and is Complete or Incomplete. The Utility shall notify the Customer within seven calendar days of receipt of the Application as to whether it is complete or incomplete.~~

~~a. If the Application is incomplete, the Utility shall specify what information or material is necessary to complete the Application.~~

~~b. The Customer has 30 calendar days after receipt of such notification to submit the required information or materials (or request an extension), or the Application may be considered withdrawn.~~

~~4. Utility Reviews Application. Within 20 calendar days following the receipt of a complete Application, the Utility shall review the proposed Interconnection and notify the Customer of one of the following determinations:~~

~~a. The proposed Generating Facility design appears to meet all Interconnection requirements and the Application is approved as submitted. The Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (5) below; or~~

~~b. The proposed Generating Facility has failed to meet one or more of the screens, but the initial review indicates that Additional Review may enable the Utility to determine that the Generating Facility can be interconnected consistent with safety, reliability, and power quality. In such case, the Utility shall offer to perform additional review (typically about three hours of study)~~A. Feasibility Study. If ~~to determine whether minor modifications to the Distribution System (for example, changing meters, fuses, or relay settings) would enable the Interconnection to be made consistent with safety, reliability and power quality. The Utility shall provide to the Customer a non-binding, good faith estimate of the costs of such additional review, and/or such minor modifications. The Utility shall undertake the additional review or minor modifications only after the Customer consents to pay for the review and/or modifications. Such additional review will take place within 21 calendar days after the Customer has submitted payment for the estimated costs; or~~

~~c. The proposed Generating Facility design has failed to meet one or more of the Interconnection requirements, and the Application is denied. The Utility shall provide an explanation of the reasons for the denial (in writing unless~~ requested by the Customer~~), and specifies what~~

~~additional information or modifications to the Generating Facility or Distribution System are required in order to obtain approval of the proposed design.~~

~~i. If the Application is denied, the Customer shall notify the Utility within 21 calendar days whether or not it wishes to proceed with the project~~, or ~~. If the Customer does not wish to proceed with the project, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn. If the Customer wishes to proceed with the project, then a new Application shall be submitted to the Utility for review and processing (Step (1) above is re-initiated), along with any additional information and/or modifications to the Generating Facility.~~

~~ii. Alternatively, the Customer may request processing under Level 3 Study Track and shall provide any additional information requested by the Utility and necessary to process the request under Level 3 Study Track.~~

~~5. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements and the Application is approved, then:~~

~~a. The Utility shall send to the Customer the appropriate Interconnection Agreement for review and signature within 12 calendar days after providing notice of Application approval, or following receipt of any "as built" or final diagrams from the Customer.~~

~~b. The Customer shall review, sign, and return the Interconnection Agreement to the Utility.~~

~~c. The Customer shall complete installation of the Generating Facility within 180 calendar days after execution of the Interconnection Agreement, unless an installation schedule has been submitted with an alternative in-service date, or the parties have mutually agreed to an extension. The Utility has the right to terminate any Interconnection Agreement, and the Application may be considered withdrawn, in the event that this time-frame is exceeded without extension.~~

~~6. Inspection and Testing. The Customer shall contact the Utility to schedule the Utility site inspection and witness of the testing of the protective devices. The Utility site inspection and witness of the testing of the protective devices will occur within 12 calendar days of the Customer's request. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time. A Utility may not charge for the initial site inspection unless a tariff containing such a fee is approved by the Commission.~~

~~a. The Utility shall perform the site inspection as arranged and verify that the Generating Facility, as best as can be~~ determined~~, is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:~~

~~i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;~~

~~ii. All Generating Facility equipment is properly labeled;~~

~~iii. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;~~

~~iv. Generator nameplate ratings are consistent with the information submitted to the Utility;~~

~~v. The Utility has unrestricted 24-hour access to the Disconnect Switch (if required), and the switch meets all applicable requirements; and~~

~~vi. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.~~

~~b. The Utility shall witness the required protective relay calibration and functional tests or accept a certified test report in lieu of witnessing the tests.~~

~~c. Before or at the time of the site inspection, the Utility shall:~~

~~i. Install appropriate metering if required;~~

~~ii. Label all Utility equipment; and~~

~~iii. Ensure that the Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.~~

~~d. The Utility does not have the right to fail a site inspection in the event that any of the above three requirements (metering, Utility equipment labeling, and the identification of the Generating Facility on the operating maps) are not in place at the time of the site inspection. The Utility does have the right to fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or as a result of any safety or protection violation.~~

~~7. Notification. The Utility shall determine whether or not the Generating Facility meets all applicable requirements following completion of the site inspection (and upon receipt of all final applicable signed Interconnection documents). The Utility shall provide the Customer oral notification within 24 hours and written notification within five calendar days that:~~

~~a. The Generating Facility is approved for parallel operation with the Distribution System per the agreed terms and conditions; or~~

~~b. The Generating Facility has failed to meet one or more of the applicable requirements or a safety or protection violation has been identified, and the Generating Facility is not approved for parallel operation. The Utility shall provide the reasons (in writing unless requested by the Customer) for not approving parallel operation. The Utility may take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from parallel operation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.~~

~~8. Corrections (if necessary). In the event that the Generating Facility does not pass each Utility site inspection:~~

~~a. The Customer may schedule a re-inspection after correcting any outstanding issues. The Utility shall re-inspect upon 12 calendar days notice from the Customer to verify that the deficiencies have been remedied. A Utility may not charge a fee for a re-inspection unless a tariff containing such a fee is approved by the Commission. Following any site re-inspection where the Utility approves parallel operation of the Generation Facility, the Utility shall provide to the Customer such oral notification within 24 hours and such written notification within five calendar days that the Generation Facility is approved for parallel operation.~~

~~b. If updated diagrams are required to reflect "as-built" conditions, the Customer must submit the updated diagrams to the Utility for review and approval within 12 calendar days following the site inspection. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after acceptance of the revised diagrams for Customer review and signature.~~

~~D. Customer Time-frames. The Utility time-frames contained herein do not include the time for the Customer to execute agreements or submit needed documentation. If at any point in the Level 2 Fast Track process, the Customer does not submit requested materials necessary to process the Application, or submit applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.~~

~~E. Fees for Level 2 Fast Track Additional Review. A Utility may not charge a fee for an additional review, unless a tariff containing the hourly rate for additional review is approved by the Commission. The~~

~~Utility shall provide a non-binding good faith estimate of the fee for such additional review. The Customer shall submit a deposit for the estimated fee before the additional review will be initiated. In addition, the Customer shall have the responsibility for any costs of Utility facilities and equipment modifications necessary to accommodate the Customer's Interconnection.~~

~~**R14-2-2620. Level 3 Study Track**~~

~~A. Level 3 Study Track is to be used for all Generating Facilities that do not meet the screening requirements for Level 1 Super Fast Track or Level 2 Fast Track. It is an in-depth engineering review of whatever aspects of generator performance and/or grid interaction the Utility deems necessary to study. More details shall be available in each Interconnection Manual. No review of the Generating Facility's protection equipment is required for generators that are certified, although the Utility may study the interface between the Generating Facility and the Distribution System. The Generating Facility is required to meet applicable local electric codes and standards, as well as comply with all terms and conditions of the Interconnection Manual and Interconnection Agreement.~~

~~**B.** Nothing in these procedures shall preclude the Customer and Utility from mutually agreeing to different time frames or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties.~~

~~C. The Level 3 Study Track steps are as follows:~~

~~1. Prior to Submitting Application. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.~~

~~2. Customer Submits Application. The Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form. A Utility may not charge an application fee, unless a tariff containing such a fee is approved by the Commission.~~

~~3. Application is Received and is Complete or Incomplete. The Utility shall notify the Customer within 12 calendar days of receipt of the Application, or transfer from Level 1 Super Fast Track or Level 2 Fast Track as to whether it is complete or incomplete.~~

~~a. If the Application is incomplete, the Utility shall specify what information or material is necessary to complete the Application.~~

~~b. The Customer has 30 calendar days after receipt of such notification to submit the missing information or materials (or request an extension), or the Application may be considered withdrawn.~~

~~c. After the Customer submits any missing information, the Utility has 12 calendar days to determine if the Application is complete or incomplete and notify the Customer.~~

~~4. Utility Reviews Application. Within 12 calendar days following the receipt of a complete Application, the Utility shall review the proposed Interconnection and notify the Customer of one of the following determinations:~~

~~a. The proposed Generating Facility design appears to meet all of the applicable Interconnection requirements, and no further studies, special protective requirements, or system modifications are required. The Utility shall prepare an Interconnection Agreement and forward it to the Customer for review and signature in accordance with Step (10) below; or~~

~~b.~~ by the Utility to be in the best interests~~The Generating Facility cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility. In this case, the Interconnection proceeds according to the following meeting and study process, as deemed necessary by the Utility. All itemized costs and timelines for the studies are to be disclosed and agreed upon by the Utility and Customer prior to the start of each one. In addition, all studies are to be made available to the Customer directly after their completion.~~

~~5. Scoping Meeting. This meeting is an initial review meeting between the Utility and the Customer, where the Customer provides a general overview of the proposed Generating Facility design and the Utility provides general information on system conditions at the proposed Point of Interconnection. This meeting also allows the Utility and the Customer to discuss which studies are needed. The Utility and the 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. This meeting shall be held within 12 calendar days after an Application is deemed complete unless other mutual agreements are made.~~

~~6. Acknowledgement Letter. The Utility will provide an acknowledgement letter following the Scoping Meeting upon request from the Customer. The letter will describe the project scope and~~

~~include a good faith cost estimate by the Utility. If requested, the letter will be sent out within 12 calendar days following the Scoping Meeting.~~

~~7. Feasibility Study. If requested by the Customer~~, the Utility shall undertake a Feasibility Study. The Utility shall provide the Customer, within twelve (12) calendar days after the Scoping Meeting, a Feasibility Study agreement including an outline of the scope of the study and a non-binding, good faith~~, detailed estimate of the materials and labor costs~~ cost to perform the study. The Utility shall conduct the Feasibility Study after the Customer executes the Feasibility Study agreement set forth in the Utility's Interconnection Manual, provides all requested Customer information necessary to complete the Feasibility Study, and pays the estimated costs for the Feasibility Study.

~~a~~1. The Utility shall make reasonable efforts to complete the Feasibility Study ~~shall be completed~~ within 21 calendar days, unless other mutually agreeable terms are made.

~~b~~2. The Feasibility Study will review short circuit currents including contribution from the proposed generator as well as coordination of and potential overloading of distribution circuit protection devices. This study principally benefits the Customer by providing initial details and ideas on the complexity and likely costs to interconnect prior to commitment of costly engineering review. The Feasibility Study may also be used to focus or eliminate some or all of the more intensive System Impact study.

~~8~~B. System Impact Study. If deemed necessary by either party, the Utility shall undertake a System Impact Study. The Utility shall provide the Customer, within 20 calendar days after completing the previous study or meeting, a System Impact Study agreement including an outline of the scope of the study and a non-binding, good faith, ~~detailed~~cost estimate ~~of the materials and labor costs~~ to perform the study. The Utility shall conduct the System Impact Study after the Customer executes the System Impact Study agreement, provides all requested Customer information necessary to complete the System Impact Study, and pays any required deposit of the estimated study costs.

a. The System Impact Study will be completed within ~~30 calendar days~~[ninety (90)] Business Days, unless other mutually agreeable terms are made.

b. The System Impact Study reveals all areas where the Distribution System would need to be upgraded to allow the Generating Facility to be built and interconnected as designed. It may

include discussions with the Customer about potential alterations to generator design, including downsizing to limit grid impacts.

c. If the Utility determines, in accordance with Good Utility Practice, that the Distribution System modifications required to accommodate the proposed Interconnection are not substantial, the System Impact Study shall identify the scope and detailed cost of the modifications.

d. If the Utility determines, in accordance with Good Utility Practice, that the system modifications to the Distribution System are substantial, a Facilities Study shall be performed.

e. Each Utility shall include in its Interconnection Manual a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section including:

   i. Load Flow Study;

   ii. Short-Circuit Study;

   iii. Circuit Protection and Coordination Study;

   iv. Impact on System Operation;

   v. Stability Study (and the conditions that would justify including this element in the Impact Study); and

   vi. Voltage Collapse Study (and the conditions that would justify including this element in the Impact Study).

~~9~~C. Facilities Study. The Utility shall undertake a Facilities Study if needed based on the outcome of the System Impact Study. The Utility shall provide the Customer, within seven (7) calendar days after completing the previous study or meeting, a Facilities Study agreement including an outline of the scope of the study and a non-binding, good faith~~, detailed~~ cost estimate ~~of the materials and labor cost~~ to perform the study. The Utility shall conduct the Facilities Study after the Customer executes the Facilities Study agreement, provides all requested Customer information necessary to complete the study, and pays the estimated study costs.

a. The Facilities Study shall be completed within ~~30 calendar days,~~ninety (90) Business Days unless other mutually agreeable terms are made.

b. The Facilities Study delineates the detailed costs of construction and schedule milestones. Construction may include new circuit breakers, relocation of reclosers, new Utility grid extensions, reconductoring lines, new transformers, protection requirements and interaction.

~~10. Interconnection Agreement. If the Generating Facility meets all of the applicable Interconnection requirements, all items identified in any meeting or study have been resolved and agreed to (if applicable), and the Utility has received the final design drawings, then:~~

~~a. The Utility shall send to the Customer within 12 calendar days an executable Interconnection Agreement, which shall include as an exhibit the cost for any required Distribution System modifications.~~

~~b. The Customer shall review, sign, and return the Interconnection Agreement and any balance due for Interconnection studies or required deposit for facilities.~~

~~c. The Customer shall then complete installation of the Generating Facility and the Utility shall complete any Distribution System modifications, according to the milestones set forth in the Interconnection Agreement. The Utility shall employ best reasonable efforts to complete such system upgrades in the shortest time practical.~~

~~11. Inspection and Testing. The Customer shall contact the Utility to schedule the Utility site inspection and witness of the testing of the protective devices. The Utility site inspection and witness of the testing of the protective devices shall occur within 12 calendar days of notice from the Customer. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time.~~

~~a. The Utility shall perform the site inspection and verify that the Generating Facility, as best as can be determined, is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:~~

~~i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;~~

~~ii. All Generating Facility equipment is properly labeled;~~

~~iii. Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;~~

~~iv. Generator nameplate ratings are consistent with the information submitted to the Utility;~~

~~v. The Utility has unrestricted access to the Disconnect Switch (if required), and the switch meets all requirements; and~~

~~vi. The Generating Facility is wired, as best can be determined, in accordance with the electrical diagrams submitted to the Utility.~~

~~b. The Utility shall witness the required protective relay calibration and functional tests. The Utility may accept a certified test report in lieu of witnessing the tests.~~

~~c. The Utility shall:~~

~~i. Install all appropriate metering, if required;~~

~~ii. Label all Utility equipment; and~~

~~iii. Ensure that Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.~~

~~d. The Utility may fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or has any safety or protection violation.~~

~~12. Notification. Immediately following completion of the site inspection (and upon receipt of all final applicable signed Interconnection documents) the Utility shall determine whether or not the Generating Facility meets all applicable requirements. The Utility shall provide the Customer oral notification within 24 hours and written notification within five calendar days that:~~

~~a. The Generating Facility is approved for parallel operation with the Distribution System per the Interconnection Agreement; or~~

~~b. The Generating Facility has failed to meet one or more of the applicable requirements or a safety violation has been identified, and the Generating Facility is not approved for parallel operation. The Utility shall provide the reasons (in writing unless otherwise requested by the Customer) for not approving parallel operation. The Utility may disconnect and lock out the Generating Facility to prevent the Generating Facility from parallel operation, and the Customer must reschedule the site inspection with the Utility. Operation of a Generating Facility in parallel without written approval from the Utility may result in immediate termination of electric service to the Customer.~~

~~13. Correction (if necessary). In the event that the Generating Facility does not pass the initial Utility site inspection:~~

~~a. The Customer may schedule a re-inspection after correcting the deficiencies identified by the Utility. The Utility shall re-inspect within 12 calendar days notice from the Customer to verify that the deficiencies have been remedied. Following any site re-inspection where the Utility approves parallel operation of the Generation Facility, the Utility shall provide to the Customer~~

~~such oral notification within 24 hours and such written notification within five calendar days that the Generation Facility is approved for parallel operation.~~

~~b. If updated documentation is required to reflect "as-built" conditions, the Customer must submit the updated documentation to the Utility for review and approval within 12 calendar days following the site inspection. The Utility may not charge a fee unless a tariff containing such a fee is approved by the Commission. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the updated documentation for Customer review and signature.~~

~~**D.** Customer Time frames. The Utility time frames contained herein do not include the time for the Customer to execute agreements or submit needed documentation. If at any point in the Level 3 Study Track process, the Customer does not submit requested materials necessary to process the Application or applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdrawn.~~

~~**E.** Fees for Level 3 Study Track Interconnection. A Utility may not charge a fee for an engineering review, unless a tariff containing the hourly rate for engineering review is approved by the Commission. The Utility shall provide a non-binding good faith estimate of the fee for such engineering review. The Customer must submit a deposit for the estimated fee before the engineering review will be initiated. In addition, costs for Utility facilities and/or equipment modifications necessary to accommodate the Generating Facility's Interconnection will be the responsibility of the Customer. The Customer may not be charged for the review of a certified generator's protection equipment. The Utility may not charge a fee for an initial inspection or for a re-inspection, unless a tariff containing such a fee is approved by the Commission.~~

R14-2-2621. Interconnection to a Secondary Spot Network System

A. The requirements for interconnecting a Generating Facility to a Secondary Spot Network System are different than those for Interconnection to radial distribution systems. In the Secondary Spot Network System, there are technical requirements to be considered particularly with the design and operational aspects of network protectors that are not required on radial systems.

B. The Generating Facility must meet all of the following conditions:

1. Be less than 10 kW; 2. Qualify as Certified Equipment; and

3. Be less than or equal to 10% of the Customer's verifiable minimum load during the operation of the inverter. (For photovoltaics, the minimum load refers to the daytime minimum.)

C. The process for interconnecting to a Secondary Spot Network System will be determined by the Utility.

R14-2-2622. Utility Reporting Requirements[2]

~~**A. Interconnection Manual.** Each Utility shall file an Interconnection Manual for approval with the Commission no later than 90 calendar days after adoption of this Article. An updated Interconnection Manual shall be provided to the Commission upon any substantive revision by the Utility and shall become effective within 60 days unless otherwise acted upon by the Commission.~~

~~B~~A. Documentation of Projects. Each Utility shall maintain records concerning each Application received for Interconnection and parallel operation of Distributed Generation. Such records shall include the date each Application is received, documents generated in the course of processing each Application, correspondence regarding each Application, the final disposition of each Application, and the date on which the Application was approved (if approved).

~~**C. Annual Interconnection Report to the Commission.** By March 30 of each year, each Utility shall file with the Commission a Distributed Generation Interconnection report for the preceding calendar year that lists the new Generating Facilities interconnected with the Distribution System since the previous year's report, any Distributed Generation facilities no longer interconnected with the Distribution system since the previous report, and the capacity of each Generating Facility. The annual report shall include, for the reporting period, a summary of the number of complete Applications received, the number of complete Applications approved, the number of complete Applications denied by level, and the reasons for denial. The annual report shall also include a list of special contracts, approved by the Commission during the reporting period, that provide discounted rates to consumers as an alternative to self-generation~~

[2] TEP/UNSE support consolidation of this reporting into another compliance filing if possible, rather than an additional and separate filing for this information.

Exhibit B

EXHIBIT B – TEP / UNSE Clean Version – Draft DG Interconnection Rules
Docket No. RE-00000A-07-0609
June 10, 2016

TITLE 14. PUBLIC SERVICE CORPORATIONS; CORPORATIONS AND ASSOCIATIONS; SECURITIES REGULATION
CHAPTER 2. CORPORATION COMMISSION
FIXED UTILITIES
ARTICLE 26. INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

R14-2-2601. Definitions

R14-2-2602. Applicability

R14-2-2604. Customer Rights and Responsibilities

R14-2-2605. Utility Rights and Responsibilities

R14-2-2606. Easements/Rights of Way

R14-2-2607. Insurance

R14-2-2608. Non-Circumvention

R14-2-2609. Designation of Contact Persons

R14-2-2610. Non-discrimination

R14-2-2611. Application Submission Requirements

R14-2-2612. Minor Modifications

R14-2-2613 Certification

R14-2-2614. No Additional Requirements

R14-2-2615 Disconnection from or Reconnection with the Distribution System

R14-2-2616. Summary of Interconnection Levels and Tracks

R14-2-2617. Screens

R14-2-2618. Interconnection Application

R14-2-2619. Inspection and Testing

R14-2-2620. Notification

R14-2-26xx Corrections

R14-2-26xx Interconnection Studies

R14-2-2621. Interconnection to a Secondary Spot Network System

R14-2-2622. Utility Reporting Requirements

R14-2-2601. Definitions

In this Article, unless otherwise specified:

1. "AC" means alternating current.
2. "ANSI" means American National Standards Institute.

XX "Advanced Inverter" means a system with capability of converting DC energy to AC energy and provides a TC/IP Ethernet interface for communications and control of system parameters via industry accepted protocols and standards.

3. "Application" means the Utility's standard form for applying to interconnect a Generating Facility with the Distribution System.
4. "Commission" means the Arizona Corporation Commission.
5. "Backfeed" means to energize a section of a Utility electric system that is supplied from a source other than its normal source.
6. "Business Day" means Monday through Friday, excluding federal and Arizona state holidays.
7. "Certified Equipment" means a specific generating and protective equipment system or systems that have been certified as meeting the requirements in R14-2-2613 relating to testing, operation, safety, and reliability by an entity approved by the Commission.
8. "CFR" means Code of Federal Regulations.

XX Clearance" means a statement, with documentation, from the Utility that said line or equipment is disconnected from all known sources of power and tagged, and that for safety purposes all proper precautionary measures have been taken and those workmen may proceed to inspect, test, and install grounds on the circuit.

9. "Customer" means a customer of the Utility who is the legal owner of the premises on which a Generating Facility is or will be located.

XX "Customer Interconnection Facilities" means facilities and equipment owned by Customer to connect the Generating Facility to the Utility's Distribution System.

10. "DC" means direct current.
11. "Disconnect Switch" means a device that the Customer is required to install and maintain that is a visible open, manual, gang-operated, load break disconnect device, capable of being locked in a visible open position by a standard Utility padlock that will completely isolate the Customer's

Generating Facility from the Utility grid. If the voltage is over 500 volts, it must be capable of being grounded on the Utility side.

12. "Distributed Generation" means any type of Customer electrical generator, static inverter, or Generating Facility interconnected with the Distribution System that either has the capability of being operated in electrical parallel with the Distribution System or can feed a Customer load that can also be fed by the Distribution System.
13. "Distribution System" means the infrastructure constructed, maintained, and operated by a Utility to deliver electric service to retail Customers for voltage classes set forth in the Interconnection Manual.

XX "Emergency Condition" means a condition or situation that:

(a) In the judgment of the person making the claim, is imminently likely to endanger life or property, or is necessary to protect persons, or third parties' property from damage or interference caused by the Generating Facility or improperly operating protective devices;

(b) That is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on or damage to the security or operation of the Generating Facility, Buyer's Interconnection Facilities, Buyer's Distribution System, Utilities Interconnection Facilities.

XX Facilities Study" means a comprehensive analysis of the actual construction needed to take place based on the outcome of the System Impact Study.

15. "Fault Current" means the level of current that can flow if a short circuit is applied to a voltage source.
16. "Feasibility Study" means a preliminary review of the potential impacts on the Distribution System that will result from the proposed Interconnection.
17. "Generating Facility" means all or part of the Customer's electrical generator or inverter, including energy storage systems, together with all protective, safety, and associated equipment necessary to produce electric power at the Customer's facility. A Generating Facility also includes any QF.
18. "Good Utility Practice" means any of the practices, methods, and acts engaged in or approved by a significant portion of the electric industry in the United States during the relevant time period, or any of the practices, methods, and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the

desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition.

19. "IEEE" means The Institute of Electrical and Electronic Engineers.
20. "Interconnection Agreement" means a Utility's specific agreement, together with appendices, signed between the Utility and the Customer, covering the terms and conditions governing the Interconnection and operation of the Generating Facility with the Utility.
21. "Interconnection" means the physical connection of a Generating Facility to the Distribution System.
22. "Interconnection Manual" means a separate document developed and maintained by each Utility, made available on each Utility's web site, containing detailed technical, safety, communication and protection requirements necessary to interconnect a Generating Facility to the Distribution System.
23. "Interconnection Study" means a study that may be undertaken by a Utility (or a Utility-designated third party) in response to its receipt of a completed Application. An Interconnection Study may include, but not be limited to, a Feasibility Study, a System Impact Study, and a Facilities Study.
24. "Island" means a condition in which a portion of a Distribution System is energized solely by one or more local electric power systems throughout the associated Point of Interconnection while that portion of the Distribution System is electrically separated from the rest of the Distribution System. An Island can be either intentional (planned) or unintentional (unplanned).
25. "kW" means kilowatt AC.
26. "MW" means megawatt AC.
27. "NEMA" means the National Electrical Manufacturers Association.
28. "NFPA" means the National Fire Protection Association.
29. "NRTL" means a Nationally Recognized Testing Laboratory.
30. "Parallel System" means the operation of a Generating Facility that is electrically interconnected to a bus common with the Distribution System, either on a momentary or continuous basis.
31. "Point of Interconnection" means the physical location where the Utility's service conductors are connected to the Customer's service conductors to allow parallel operation of the Generating Facility with the Distribution System.

32. "QF" means Qualifying Facility, any cogeneration or small power production facility that meets the criteria for size, fuel use, efficiency, and ownership as promulgated in 18 CFR, Chapter I, Part 292, Subpart B of the Federal Energy Regulatory Commission's Regulations.
33. "Radial Line" means a distribution line that originates from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.
34. "Relay" means an electric device that is designed to interpret input conditions in a prescribed manner and after specified conditions are met to respond to cause contact operation or similar abrupt change in associated electric control circuits.
35. "Secondary Spot Network System" means an AC power Distribution System in which a Customer is simultaneously served from three-phase, four-wire low-voltage (typically 480V) circuits supplied by two or more network transformers whose low-voltage terminals are connected to the low-voltage circuits through network protectors. The low voltage circuits do not have ties to adjacent or nearby secondary network systems. The Secondary Spot Network System has two or more high-voltage primary feeders. These primary feeders are either dedicated network feeders that serve only other network transformers, or a non-dedicated network feeder that serves radial transformers in addition to the network transformer, depending on network size and design. The system includes automatic protective devices and fuses intended to isolate faulted primary feeders, network transformers, or low-voltage cable sections while maintaining uninterrupted service to the Customers served from the low-voltage circuits.
36. "Separate System" means the operation of a Generating Facility that has no possibility of operating in parallel with the Distribution System.

XX "Supplemental Review" means providing the Utility with additional time and information to conduct additional analysis where full study is not necessary, such as for projects which may exceed minimum daytime load requirements.

37. "System Impact Study" means a full engineering review of all aspects of the Generating Facility's impact on the Distribution System, including power flow, Utility system protective device coordination, generator protection schemes (if not certified), stability, voltage collapse, frequency impacts, and short circuit duty.
38. "UL" means Underwriters Laboratories Inc.

39. "Utility" means an electric power company that constructs, operates, and maintains its Distribution System for the receipt and/or delivery of electric power.

XX "Utility Owned Interconnection Facilities" means facilities and equipment installed by the Utility needed to connect the Generating Facility to the Distribution System, including any modifications, additions, protective devices, or system upgrades. Such protective devices promptly disconnect the Generating Facility from the Distribution System in the event of a power outage on the Distribution System.

R14-2-2602. Applicability

A. These regulations:

1. Apply to any Generating Facility with a power rating of 10 MW or less, at the discretion of the serving Utility and as specified in the Interconnection Manual, operating (or applying to operate) in parallel with a Distribution System;
2. Establish procedural requirements, terms, and conditions to promote the safe and effective parallel operation of a Generating Facility with the Distribution System;

B. The total capacity of an individual Generating Facility may exceed 10 MW; however, no more than 10 MW of a Generating Facility's capacity can be interconnected at a single Point of Interconnection.

C. If necessary, a Utility may address deviations from these regulations required for Generating Facilities over 10 MW at a single Point of Interconnection in its respective Interconnection Manual.

D. The electric rates and schedules, terms and conditions of service, or other contract provisions governing the electric power sold by a Utility to an Arizona retail consumer are subject to the jurisdiction of the Commission. The Commission also has jurisdiction when the Utility purchases excess power from a QF under 18 CFR 292.303 and 18 CFR 292.306 (2004).

E. The Federal Energy Regulatory Commission has jurisdiction over an Interconnection with facilities that are subject to the Utility's Open Access Transmission Tariff.

F. The Utility has specific Interconnection, contractual, and inspection requirements that must be complied with and information that needs to be submitted for all interconnected Generating Facilities. These may include protective relaying, metering, special rate schedules, applicable safety devices, and information requirements as specified in the Interconnection Manual.

G. These regulations shall not apply to energy storage systems owned, operated and maintained by the Utility.

R14-2-2604. Customer Rights and Responsibilities

A. A Customer has the right to submit an Interconnection Application to interconnect a Generating Facility less than or equal to 10 MW in size with the Distribution System. The Customer has the right to expect reasonable and professional responses from the Utility during the Interconnection process. The Customer has the right to expect good faith cost estimates, outlines of the proposed work, supporting data, and justification for proposed work before the Utility undertakes any studies or system upgrades to accommodate the Generating Facility.

B. The Customer has the responsibility of disclosing to the Utility items specified herein on the Generating Facility and its operation. The Customer also has the responsibility of ensuring that:

1. The Generating Facility meets all minimum safety and protection requirements outlined in these provisions and the Utility's Interconnection Manual;
2. The Generating Facility meets all applicable construction codes, safety codes, electric codes, laws, and requirements of government agencies having jurisdiction;
3. All the necessary protection equipment is installed and operated to protect the Generating Facility, Utility personnel, the public, and the Distribution System;
4. The Generating Facility design, installation, maintenance, and operation minimizes the likelihood of causing a malfunction or other disturbance, damaging, or otherwise impairing the Distribution System;
5. The Generating Facility does not adversely affect the quality of service to other consumers (but no more or less than the present standard of care observed by regular Utility/consumer connections);
   xx The Generation Facility meets specific operating criteria as outlined in each Utility's Interconnection Manual;
6. The Generating Facility does not hamper efforts to restore a feeder to service (specifically when a Clearance is required);
7. The Generating Facility is maintained in accordance with applicable manufacturers' maintenance schedule; and

8. The Utility is notified of any emergency or hazardous condition or occurrence with the Generating Facility, which could affect safe operation of the Distribution System.

10. The Customer has complied with these rules, the Utility's Interconnection Manual, all applicable tariffs, rate schedules and the Utility's service requirements.

11..The Customer has installed and agrees to maintain a visual-open, manually operated, load break Disconnect Switch that will completely open and isolate all ungrounded conductors of the Generating Facility from the Distribution System. For multi-phase systems, the Disconnect Switch shall be gang-operated. The Customer shall not remove or tamper with any locks on the Disconnect Switch,

12. The Customer's Generating Facility includes an Advanced Inverter based technology at the AC output range from 1kW to 10MW level which is capable of advanced grid support features as set forth in the Interconnection Manual, including but not limited to the following:

a. Volt/Var Mode – Provide volt/var control through dynamic reactive power injection through autonomous responses to local voltage measurements.

b. Fixed Power Factor - Provide reactive power by a fixed power factor

c. Anti-islanding - Support anti-islanding to trip off under extended anomalous conditions

d. Low/High Voltage Ride-through (LHVRT) - Provide ride-through of low/high voltage excursions beyond normal limits

e. Low/High Frequency ride-through (LHFRT) - Provide ride-through of low/high frequency excursions beyond normal limits

f. Ramping

g. Soft-Start Reconnection - Reconnect after grid power is restored

h. Remote ON/OFF

i. Power Curtailment – 0% to 100%

C. The Customer is responsible for designing, installing, operating and maintaining all Interconnection facilities required by the Utility's Interconnection Manual to interconnect the Generating Facility to the Distribution system. Such facilities shall be located on the Customer's premises and shall include all equipment as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection. These include connection, transformation, switching, protective relaying, metering, Disconnect Switch, communication and safety equipment, and any other

requirements as outlined in this Article or other special items specified by the Utility. All such Interconnection facilities are to be installed in accordance with the Utility's Interconnection Manual at the sole expense of the Customer.

D. The Customer, or Customer's agent, shall own and be responsible for designing, installing, operating and maintaining control and protective devices, in addition to minimum protective devices and relays specified in the Utility's Interconnection Manual, to protect its facilities from abnormal operating conditions such as, but not limited to, electric overloading, abnormal voltages and frequencies, and Fault Currents. Such protective devices must promptly disconnect the Generating Facility from the Distribution System in the event of a power outage on the Distribution System. The Customer shall also own and be responsible for designing, installing, operating and maintaining Customer Interconnection facilities on the Customer's premises as may be required to deliver power from the Generating Facility to the Distribution System at the Point of Interconnection.

E. In the event that additional facilities are required to be installed on the Distribution System to accommodate the Customer's generation, the Utility will install, replace, and maintain such facilities at the Customer's expense. The Utility shall provide notice to the Customer of intent to install such facilities following completion of studies as identified in the study track. A Facility Study may be required to further identify the costs and scope associated with any proposed work and required Utility Owned Interconnection Facilities. The Customer is not responsible for Utility upgrades for the public unrelated to the Generating Facility installation.

F. Customers interconnecting a Generating Facility with the Utility system shall:

1. Sign an Interconnection Agreement, and all other applicable purchase, supply, and standby agreements; and
2. Comply with all applicable tariffs, rate schedules and Utility service requirements.

R14-2-2605. Utility Rights and Responsibilities

A. The Utility will specify its Rights and Responsibilities for interconnecting Generating Facilities to the Distribution System subject to the requirements set forth Interconnection Manual.

B. The Interconnection Manual shall set forth the Utility's specific interconnection requirements for the following:

1. Any requirements for a safety disconnect

2. Forms of Interconnection Agreement and the Utility's process of reviewing and approving Applications
3. Application Study Track and Non-Study Track requirements
4. Metering requirements
5. Inspection and testing requirements
6. Utility's process for notifying the Customer of any corrections needed to the Application
7. Special rate schedules
8. Insurance requirements
9. Applicability of the Interconnection Manual to different Generating Facilities
10. General technical specifications and requirements
11. Power quality requirements
12. Voltage requirements
13. Telemetry requirements
14. Labeling requirements
15. Protective requirements
16. Data and information requirement
17. Any other requirements for Interconnection to the Distribution System.

C. The Utility has the right to expect reasonable, and professional responses from the Customer during the Interconnection process.

D. Because the Utility is required to safeguard its system, other Customers, and the general public, the Utility has the right and responsibility to require that an interconnected Generating Facility:

1. Will not present any hazards to Utility personnel, other Customers or the public;
2. Will not cause disruption or deterioration of service to other Customers or the public;
3. Will not cause damage to the Utility and other Customers' equipment; and
4. Does not hamper efforts to restore a feeder to service (specifically when a Clearance is required).

E. The Utility will notify the Customer if there is any reason to believe that the Customer's Generating Facility operation causes disruption or deterioration of service to other Customers served from the Distribution System or if such operation causes damage to the Distribution system.

F. The Utility has the responsibility to make its Interconnection Manual and standard Application forms and Interconnection Agreements readily available to Customers in print and online formats.

G. Following the receipt and review of Customer's completed Application, the Utility may perform an engineering review to determine if an Interconnection Study is required. As part of the Interconnection Study process, the Utility has the responsibility to provide a non-binding good faith cost estimate, outline of the proposed work, supporting data, and justification for the proposed work.

H. The Utility may require certain Utility Owned Interconnection Facilities including but not limited to, protection, metering, communications, and safety equipment. All such Utility Owned Interconnection Facilities are to be installed in accordance with the Utility's Interconnection Manual.

I. A Utility cannot charge a Customer for planned facility upgrades except that Applications can be rejected in instances where reliability or safety would be further compromised by a Distributed Generation installation. A Utility shall not charge a Generating Facility Customer differently than the general public for facility upgrades in accordance with generally applicable Commission-approved tariffs.

J. The Utility has no obligation to install or maintain any lines or equipment on a Customer's side of the Point of Interconnection, except that Utility may install Utility Owned Interconnection Facilities. Only Utility authorized employees may make and energize the service connection between the Distribution System and the Customer's service entrance conductors.

K. The Utility has the right to deploy interconnection resources and Utility Interconnection Facilities to maintain grid affordability, reliability, safety and stability, and to require additional certification, training or experience in developing its Interconnection Manual requirements.

R14-2-2606. Easements/Rights of Way

Utility Right to Access Utility-Owned Facilities and Equipment. Where an easement or right of way does not exist, but is required to accommodate the Interconnection, the Customer must provide suitable easements or rights of way, in the Utility's name, on the premises owned, leased, or otherwise controlled by the Customer. If the required easement or right of way is on another's property, the Customer must obtain and provide to the Utility a suitable easement or right of way, in the Utility's name, at the Customer's sole cost and in sufficient time to comply with the Interconnection Agreement requirements. To the extent possible and determined to be in the best interests of the Utility and the Customer, the Utility may utilize existing easements.

R14-2-2607. Insurance

A. The Customer's obligation to provide general liability insurance coverage as a condition for Interconnection due to the risk of incurring damages and potential Emergency Conditions shall be set forth in the Interconnection Manual based on size and technology. Every Customer shall protect itself with insurance or other suitable financial instrument or self-insurance sufficient to meet its construction, operating, and liability responsibilities. At no time shall the Utility require that the Customer negotiate any policy or renewal of any policy covering any liability through a particular insurance provider, agent, solicitor, or broker.

B. The inability of the Utility to require the Customer to provide general liability insurance coverage for operation of the Generating Facility is not a waiver of any rights the Utility may have to pursue remedies at law against the Customer to recover damages.

R14-2-2608. Non-Circumvention

A Utility and its affiliates shall not use knowledge of proposed Distributed Generation projects submitted to it for Interconnection or study to initiate competing proposals to the Customer that offer either discounted rates in return for not installing the Distributed Generation, or offer competing Distributed Generation projects. Customers are not precluded from sharing information in their possession regarding a potential Distributed Generation project with a Utility or its affiliates, or from using information regarding a potential Distributed Generation project to negotiate a discounted rate or other mutually beneficial arrangement with a Utility or its affiliates. The Utility shall be permitted to inform the Customer of existing or pending (awaiting approval by the Commission) rate schedules that may economically benefit, economically disadvantage, or otherwise affect the Customer's project.

R14-2-2609. Designation of Contact Persons

A. Each Utility shall designate a person or persons to serve as the Utility's contact for all matters related to Distributed Generation Interconnection; identify to the Commission its Distributed Generation contact person; and provide convenient access through its web site to the names, telephone numbers, mailing addresses and electronic mail addresses for its Distributed Generation contact person or persons.

B. Each Customer applying for Interconnection shall designate a contact person or persons, and provide to the Utility the contact's name, telephone number, mailing address, and electronic mail addresses.

R14-2-2610. Non-discrimination

All Applications for Interconnection and parallel operation of Distributed Generation shall be processed by the Utility in a non-discriminatory manner.

R14-2-2611. Application Submission Requirements

The Utility's Interconnection Manual shall set forth the process for submitting an Application, all Application forms, Interconnection Study agreements forms, and the requirements for additional documentation be submitted with the Application, . Each Utility's Application form shall specify what additional documentation is required. Additional documentation may include an electrical one-line diagram, an electrical three-line diagram, AC and DC control schematics, plant location diagram, and site plan. The Utility's Interconnection Manual may include, but shall not be limited to, sample diagrams that indicate the preferred level of detail and type of information required for a typical inverter-based system. For all Interconnections, the Customer shall complete the Application and submit it to the Utility along with all required supplemental information which shall be noted on the Application form.

A. The Utility shall provide the Customer notification within sixty (60) calendar days following the receipt of an Application of one of the following determinations:

1. The proposed Generating Facility design appears to meet all of the applicable Interconnection requirements, and no further studies, special protective requirements, or system modifications are required; or
2. The proposed Generating Facility has failed to meet one or more of the screens, but the initial review indicates that Supplemental Review may enable the Utility to determine that the Generating Facility can be interconnected consistent with safety, reliability, and power quality. In such case, the Utility shall offer to perform the Supplemental Review to determine whether minor modifications to the Distribution System (for example, changing meters, fuses, or relay settings) would enable the Interconnection to be made consistent with safety, reliability and power quality. The Utility shall provide to the Customer a non-binding, good faith estimate of the costs of such additional review, and/or such minor modifications. The Utility shall

undertake the additional review or minor modifications only after the Customer consents to pay for the review and/or modifications. Such additional review will take place within twenty-one (21) Business Days after the Customer has submitted payment for the estimated costs; or

3. The Generating Facility cannot be interconnected without further information, data, engineering studies, or modifications to the Distribution System or Generating Facility. In this case, the Interconnection proceeds along the Level 3 Study Track. All itemized costs and timelines for the studies are to be disclosed and agreed upon by the Utility and Customer prior to the start of each one. In addition, all studies are to be made available to the Customer within a reasonable timeframe after their completion.
4. The Application is incomplete or the proposed Generating Facility design has failed to meet one or more of the Interconnection requirements. The Utility shall provide an explanation of the reasons for the denial (in writing unless requested by the Customer), and shall specify what additional information or modifications to the Generating Facility or Distribution System, if any, are required in order to obtain approval of the proposed design. The Customer shall either:
    i. Within thirty (30) Business Days of notification, inform the Utility of its intent to proceed or not proceed with the project. If the Customer fails to notify the Utility within the specified time-frame, the Application may be withdrawn by the Utility.
    ii. Submit required supplemental documents within thirty (30) Business Days of notification, along with any additional information and modifications to the Generating Facility. The Utility shall provide notification to the Customer within thirty (30) Business Days of submittal of supplemental documents informing customer of Application approval or if other corrections are needed.
5. The Application is denied. In this case, the Customer shall notify the Utility within twenty-one (21) Business Days whether or not it wishes to proceed with the Application. If the Customer does not wish to proceed with the project, or the Utility is not notified within the specified time-frame, the Application may be considered withdrawn. If the Customer wishes to proceed, then a new Application shall be submitted to the Utility for review and processing, along with any additional information and/or modifications to the Generating Facility.

B. Prior to Submitting Application, the Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation, or to schedule a scoping meeting to review the general overview of the proposed Generating Facility design and to provide the Utility general information on system conditions at the proposed Point of Interconnection. This meeting also allows the Utility and the Customer to discuss which studies are needed. The Utility and the 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.

R14-2-261XX. Fees and Costs.

A Utility may charge fees for the Application, Feasibility Study, Facilities Study, System Impact Study, and any additional reviews, including applicable tax gross ups. The Utility shall provide a non-binding good faith cost estimate of all fees and costs for any study to be performed or required engineering review. If required, the Customer shall submit a deposit for the estimated fees and/or costs before a study or any additional review will be initiated. In addition, the Customer shall have the responsibility for any costs of Utility Owned Interconnection Facilities including replacement, maintenance, and equipment modifications necessary to accommodate the Customer's Interconnection. The Utility may charge a fee for an initial inspection or for a re-inspection if a tariff containing such a fee is approved by the Commission.

R14-2-2612. Minor Modifications

It is recognized that certain Applications may require minor modifications to the Generating Facility or the Application while they are being reviewed by the Utility which do not have an impact on Customer's compliance with the Utility's Interconnection Manual. A pending Application requiring modifications may be considered incomplete and treated as a new or separate Application.

R14-2-2613 Certification

A. In order to qualify as Certified Equipment for any Interconnection procedures, relevant equipment must comply with applicable codes, guides, and standards.

B. In order to qualify as Certified Equipment, Generating Facility equipment proposed for use separately or packaged with other equipment in an Interconnection system must comply with the following requirements:

1. It has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards by any NRTL recognized by the U. S. Occupational Safety and Health Administration to test and certify Interconnection equipment pursuant to the relevant codes and standards;
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 Customer approval, the test data itself. The NRTL may make such information available on its web site and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.

C. The 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.

D. . Nothing herein shall preclude the need for project Interconnection review and approval by the Utility or on-site commissioning testing prior to the Interconnection nor follow-up production testing by the NRTL.

E. If the Certified Equipment includes only interface components (switchgear, inverters, or other interface devices), then a Customer must show, upon Utility's request, that the Generating Facility is compatible with the interface components and is consistent with the testing and listing specified for this type of Interconnection equipment.

F. Certified Equipment does not include equipment provided by the Utility.

R14-2-2614. No Additional Requirements

If a Generating Facility complies with all applicable requirements, a Utility may not require the Customer to install additional controls, or perform or pay for additional tests, in order to obtain approval to interconnect except as mutually agreed to by the parties or required by the Commission. Additional equipment may be installed by the Utility at its own expense.

R14-2-2615 Disconnection from or Reconnection with the Distribution System

A. A Utility may disconnect a Generating Facility from the Distribution System under the following conditions:

1. Expiration or termination of Interconnection Agreement. The Interconnection Agreement specifies the effective term and termination rights of the Utility and the Customer. Upon expiration or termination of the Interconnection Agreement with a Customer, in accordance with the terms of the agreement, the Utility may disconnect a Generating Facility.
2. Non-compliance with technical Interconnection requirements. A Utility may disconnect a Generating Facility if the facility is not in compliance with the technical requirements and the Utility's Interconnection Manual. Within ten (10) Business Days from the time the Customer notifies the Utility that the Generating Facility has been restored to compliance with the technical requirements, the Utility shall have an inspector verify such compliance. Upon such verification, the Utility in coordination with the Customer, will reconnect the Generating Facility.
3. Emergency Condition. . The Utility shall have unrestricted access to the Generating Facility to immediately suspend interconnection service and to disconnect the Generating Facility in the event of an Emergency Condition.
3. During the forced outage of a Distribution System, the Utility may temporarily disconnect a Generating Facility to make immediate repairs on the Distribution System. When possible, the Utility shall provide the Customer with reasonable notice. The Utility shall reconnect the Generating Facility as soon as commercially practical.
4. Routine maintenance, repairs, and modifications. A Utility may disconnect a Generating Facility from the Distribution System with reasonable prior notice of a service interruption for routine maintenance, repairs, and system modifications. The Utility shall allow reconnection of the Generating Facility as soon as commercially practical following any such service interruption.
5. Absence of executed Interconnection Agreement. In order to interconnect a Generating Facility to a Distribution System, the Customer and the Utility must execute an Interconnection Agreement as set forth in the Interconnection Manual. The Utility may refuse to connect or may disconnect the Generating Facility if a properly executed Interconnection Agreement is not in effect

B. The parties shall cooperate with each other to restore the Generating Facility and the Distribution System to their normal operating state as soon as practical.

C. Temporary disconnection by Customer. The Customer may temporarily disconnect its Generating Facility from the Distribution System at any time. Such temporary disconnection shall not be a termination of the Interconnection Agreement unless specified as such.

D. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.

E. Duration and Termination of the Interconnection Agreement. The Interconnection Agreement shall become effective on the effective date specified in the agreement and shall remain in effect thereafter unless and until:

1. It is terminated by mutual agreement of the parties;
2. It is replaced by another Interconnection Agreement with mutual consent of the parties;
3. It is terminated by either party pursuant to a breach or default of the agreement; or
4. The Customer terminates its Utility electric service and/or vacates or abandons the property on which the Generating Facility is located, or the Generating Facility, without mutual agreement of the parties.

F. Upon termination of the Interconnection Agreement, the Customer shall be responsible for ensuring that the Disconnect Switch is immediately opened, and the electrical conductors connecting the Generating Facility to the Distribution System are immediately lifted and permanently removed, so as to preclude any possibility of an inadvertent interconnected operation in the future. The Utility may inspect the Generating Facility to verify that it is permanently disconnected.

R14-2-2616. Summary of Interconnection Study and Non-Study Tracks

Interconnection Applications follow the interconnection levels and tracks set forth below, or as outlined in the Interconnection Manual. In all cases the Generating Facility is required to meet applicable local electric codes and standards, as well as comply with all terms and conditions of the Interconnection Manual and Interconnection Agreement.[1]

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[1] TEP/UNSE support flexibility to each utility to determine the study and non-study tracks best suited for that utility and to either have these tracks in the rules or the utility's interconnection manual.

A. Super Fast Non-Study Track. Certified inverter-based facilities that have a power rating of 10 kW or less, are single phase, are interconnected on a Radial Line, and meet screens (E) and (F) in R14-2-2617, below.

B. Fast Track. Generating Facilities that have a power rating of 1 MW or less, are interconnected on a Radial Line, and meet screens (A) through (I) in R14-2-2617

C. Study Track. Energy storage systems of all power ratings and Generating Facilities above 1 MW and below 10 MW. Interconnection Studies as set forth in R14-26XX -shall be required. . This Study Track is to be used for all Generating Facilities that do not meet the screening requirements for Super Fast Track or Fast Track. It is an in-depth engineering review of whatever aspects of generator performance and/or grid interaction the Utility deems necessary to study. More details shall be available in each Interconnection Manual. No review of the Generating Facility's protection equipment is required for generators that are certified, although the Utility may study the interface between the Generating Facility and the Distribution System. **D.**

R14-2-2617. Screens

A. For Interconnection of a proposed Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Generating Facility, on the circuit will not exceed 15% of the total circuit annual peak load as most recently measured at the substation or on a line section. In the case of generators certified to UL 1741 and IEEE 1547, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, or the end of the distribution line. For non-certified generators, a line section is that portion of a Distribution System connected to a Generating Facility bounded by automatic sectionalizing devices, a fused lateral, or the end of the distribution line. The aggregated generation, including the proposed Generating Facility, must also be less than 50% of the minimum daytime feeder or line section load, where these data are available, unless the minimum load is zero.

B. The proposed Generating Facility, and new motors associated with the proposed generator, in aggregation with other generation on the distribution circuit, will not contribute more than 10% to the distribution circuit's maximum Fault Current at any point on the Distribution System, including normal contingency conditions that may occur due to reconfiguration of the feeder or the distribution substation.

C. The proposed Generating Facility, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or general equipment on the system, to exceed 90% of the short circuit interrupting capability; nor is the Interconnection proposed for a circuit that already exceeds 90% of the short circuit interrupting capability.

D. The proposed Generating Facility is interconnected to the Utility as shown in the table below:

Primary distribution line configuration	Interconnection to primary distribution line
Three-phase, three wire	If a three-phase or single-phase generator, Interconnection must be phase-to-phase
Three-phase, four wire	If a three-phase (effectively grounded) or single-phase generator, Interconnection must be line-to-neutral

E. If the proposed Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Generating Facility, cannot exceed 10 kW, and the proposed generator must be listed to UL 1741.

F. If the proposed Generating Facility is single-phase and is to be interconnected on a transformer center tap neutral of a 240 volt service, its addition will not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.

G. The proposed Generating Facility, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the generator proposes to interconnect, will not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level (69 kV or higher) busses from the Point of Interconnection).

H. The proposed Generating Facility's Point of Interconnection will not be on a transmission (or subtransmission (46 kV or higher) line.

I. The proposed Generating Facility cannot exceed the capacity of the Customer's existing electrical service.

R14-2-2618 Interconnection Application

If the Generating Facility meets all of the applicable Interconnection and study requirements , and the Utility has received the final design drawings, "as built" drawings and any final diagrams (as applicable), then:

1. The Utility shall send to the Customer within twelve (12) Business Days an executable Interconnection Agreement, which shall include as an exhibit with a non-binding good faith estimated cost
2. The Customer shall review, sign, and return the Interconnection Agreement to the Utility and, pay any balance due for Interconnection studies or required deposits.
3. The Customer shall complete installation of the Generating Facility within one-hundred twenty (120) Business Days after execution of the Interconnection Agreement, unless an extension is mutually agreed to by the parties, which extension shall not be unreasonably withheld. The Utility has the right to terminate any Interconnection Agreement, and the Application may be considered withdrawn in the event that this time-frame is exceeded without extension.
4. The Utility shall endeavor to complete any Distribution System modifications in accordance with the milestones set forth in the Interconnection Agreement, and if system upgrades are required, to employ commercially reasonable efforts to complete such system upgrades in accordance with the good faith estimate and the Interconnection Agreement.

B. Nothing in this process precludes the Customer and Utility from mutually agreeing to different time-frames or other procedures for the approval of interconnected operation of a Generating Facility, so long as the project progresses as agreed to by the parties. Nothing in this process precludes the Customer from starting construction prior to contacting the Utility; however, the Customer accepts the risk of potentially needing to modify or substantially change the installation. The Utility time-frames contained herein do not include the time for the Customer to execute agreements or submit needed documentation. If at any point in the Level 2 Fast Track process, the Customer does not submit requested materials necessary to process the Application, or submit applicable executable agreements within 30 calendar days, or request an extension, the Application may be considered withdraw

C. Agreement survival rights. The Interconnection Agreement between the Utility and the Customer shall continue in effect after disconnection or termination of electric service to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.

D. The Customer may contact the Utility at the conceptual stages of the design to discuss the proposed design, installation, and operation. Upon the Customer's request, the Utility shall meet with the Customer prior to submission of an Application.

R14-2-2619 Inspection and Testing. The Customer will give the Utility at least five (5) Business Days' notice to schedule the Utility site inspection and Advanced Inverter shutdown testing. The Utility may schedule metering replacement, if necessary, and labeling of Utility equipment to occur at the same time. There will be no charge for one initial site inspection by the Utility.

A. The Utility shall perform the site inspection and verify that the Generating Facility, as best as can be determined, is in compliance with all applicable Interconnection and code requirements. At a minimum, the Utility shall verify the following:

i. An electrical permit and/or clearance has been issued by the authority having jurisdiction, if required;

ii. All Generating Facility equipment is properly labeled;

iii. The Generating Facility system layout is in accordance with the plant location and site plans submitted to the Utility;

iv. Inverter nameplate ratings are consistent with the information submitted to the Utility;

v. The Utility has unrestricted 24-hour access to the Disconnect Switch (if required), and the switch meets all applicable requirements;

vi. The inverter shuts down as required upon simulated loss of Utility voltage; and

vii. The Generating Facility is wired, as best as can be determined, in accordance with the electrical diagrams submitted to the Utility.

B. The Utility will normally before or at the time of the site inspection:

i. Install appropriate metering if required;

ii. Label all Utility equipment; and

iii. Ensure that the Generating Facility is properly incorporated onto Utility operating maps and identified as a Backfeed source.

C. The Utility has the right to fail a site inspection in the event that any of the above three requirements (metering, Utility equipment labeling, and the identification of the Generating Facility on the operating maps) are not in place at the time of the site inspection. The Utility has the right to fail any Generating Facility that does not meet the applicable Interconnection requirements, is not installed in accordance with the documentation submitted to the Utility, or as a result of any safety or protection violation.

R14-2-2620 Notification. Immediately following completion of the site inspection and upon receipt of all final applicable signed Interconnection documents, the Utility shall determine whether or not the Generating Facility meets all applicable requirements, and notify the Customer that:

A. The Generating Facility is approved for parallel operation with the Distribution System per the agreed terms and conditions. Within one (1) Business Day following such oral notification, the Utility shall provide the Customer with such notice in writing; or

B. The Generating Facility has failed to meet one or more of the applicable requirements or a safety or protection violation has been identified, and the Generating Facility is not approved for parallel operation. The Utility must provide the reasons (in writing, unless otherwise requested by the Customer) for not approving parallel operation. Furthermore, the Utility has the right to take any reasonable steps (including locking open the Disconnect Switch) to prevent the Generating Facility from parallel operation. Operation of a Generating Facility in parallel without Utility approval may result in immediate termination of electric service to the Customer.

R14-2-26xx Corrections. In the event that the Generating Facility does not pass the initial Utility site inspection:

A. The Customer must correct any outstanding issues and schedule a re-inspection. The Utility shall re-inspect upon five (5) Business Days' notice from the Customer to verify that the deficiencies have been remedied. The Utility may charge a fee for each re-inspection, if a tariff containing such a fee is approved by the Commission. Within one (1) business day following any site re-inspection, where the Utility approves parallel operation of the Generating Facility,

the Utility shall provide written notification to the Customer that the Generation Facility is approved for parallel operation.

B. If updated diagrams are required to reflect "as-built" conditions, the Customer must submit these to the Utility for review and approval within ten (10) Business Days following the site inspection. The Utility shall process and mail an amendment to the Interconnection Agreement within seven calendar days after receipt and acceptance of the revised diagrams for Customer review and signature.

R14-2-26xx. Interconnection Studies

A. Feasibility Study. If requested by the Customer, or determined by the Utility to be in the best interests, the Utility shall undertake a Feasibility Study. The Utility shall provide the Customer, within twelve (12) calendar days after the Scoping Meeting, a Feasibility Study agreement including an outline of the scope of the study and a non-binding, good faith cost to perform the study. The Utility shall conduct the Feasibility Study after the Customer executes the Feasibility Study agreement set forth in the Utility's Interconnection Manual, provides all requested Customer information necessary to complete the Feasibility Study, and pays the estimated costs for the Feasibility Study.

1. The Utility shall make reasonable efforts to complete the Feasibility Study within 21 calendar days, unless other mutually agreeable terms are made.
2. The Feasibility Study will review short circuit currents including contribution from the proposed generator as well as coordination of and potential overloading of distribution circuit protection devices. This study principally benefits the Customer by providing initial details and ideas on the complexity and likely costs to interconnect prior to commitment of costly engineering review. The Feasibility Study may also be used to focus or eliminate some or all of the more intensive System Impact study.

B. System Impact Study. If deemed necessary by either party, the Utility shall undertake a System Impact Study. The Utility shall provide the Customer, within 20 calendar days after completing the previous study or 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. The Utility shall conduct the System Impact Study after the Customer executes the System Impact Study agreement,

provides all requested Customer information necessary to complete the System Impact Study, and pays any required deposit of the estimated study costs.

a. The System Impact Study will be completed within [ninety (90)] Business Days, unless other mutually agreeable terms are made.

b. The System Impact Study reveals all areas where the Distribution System would need to be upgraded to allow the Generating Facility to be built and interconnected as designed. It may include discussions with the Customer about potential alterations to generator design, including downsizing to limit grid impacts.

c. If the Utility determines, in accordance with Good Utility Practice, that the Distribution System modifications required to accommodate the proposed Interconnection are not substantial, the System Impact Study shall identify the scope and detailed cost of the modifications.

d. If the Utility determines, in accordance with Good Utility Practice, that the system modifications to the Distribution System are substantial, a Facilities Study shall be performed.

e. Each Utility shall include in its Interconnection Manual a description of the various elements of a System Impact Study it would typically undertake pursuant to this Section including:

   i. Load Flow Study;

   ii. Short-Circuit Study;

   iii. Circuit Protection and Coordination Study;

   iv. Impact on System Operation;

   v. Stability Study (and the conditions that would justify including this element in the Impact Study); and

   vi. Voltage Collapse Study (and the conditions that would justify including this element in the Impact Study).

C. Facilities Study. The Utility shall undertake a Facilities Study if needed based on the outcome of the System Impact Study. The Utility shall provide the Customer, within seven (7) calendar days after completing the previous study or meeting, a Facilities Study agreement including an outline of the scope of the study and a non-binding, good faith cost estimate to perform the study. The Utility shall conduct the Facilities Study after the Customer executes the Facilities Study agreement, provides all requested Customer information necessary to complete the study, and pays the estimated study costs.

a. The Facilities Study shall be completed within ninety (90) Business Days unless other mutually agreeable terms are made.

b. The Facilities Study delineates the detailed costs of construction and schedule milestones. Construction may include new circuit breakers, relocation of reclosers, new Utility grid extensions, reconductoring lines, new transformers, protection requirements and interaction.

R14-2-2621. Interconnection to a Secondary Spot Network System

A. The requirements for interconnecting a Generating Facility to a Secondary Spot Network System are different than those for Interconnection to radial distribution systems. In the Secondary Spot Network System, there are technical requirements to be considered particularly with the design and operational aspects of network protectors that are not required on radial systems.

B. The Generating Facility must meet all of the following conditions:

1. Be less than 10 kW; 2. Qualify as Certified Equipment; and
3. Be less than or equal to 10% of the Customer's verifiable minimum load during the operation of the inverter. (For photovoltaics, the minimum load refers to the daytime minimum.)

C. The process for interconnecting to a Secondary Spot Network System will be determined by the Utility.

R14-2-2622. Utility Reporting Requirements[2]

A. Documentation of Projects. Each Utility shall maintain records concerning each Application received for Interconnection and parallel operation of Distributed Generation. Such records shall include the date each Application is received, documents generated in the course of processing each Application, correspondence regarding each Application, the final disposition of each Application, and the date on which the Application was approved (if approved).

[2] TEP/UNSE could support consolidation of this reporting into another compliance filing if possible, rather than an additional and separate filing for this information.