



OPERATING REQUIREMENTS FOR A DISTRIBUTED GENERATOR ON THE CPS DISTRIBUTION SYSTEM

CPS and the Distributed Generator recognize the importance of having operational and maintenance procedures for the purpose of coordinating the operation of Distributed Generator's system with CPS's Gas Electric Operation system. Failure to install, operate and maintain all wiring and apparatus in such condition and/or manner as not to endanger persons or property, or to cause impairment of CPS's interconnection and service to Distributed Generator, or any of CPS's distribution customers, may result in CPS disconnecting the Distributed Generator from the CPS distribution system. The Distributed Generator's contractors, agents, and operating/maintenance personnel shall be informed of and follow these procedures. Copies of this document and its attachments shall be posted in all of Distributed Generator's applicable operating centers and facility.

Accordingly, to help ensure the protection and safety of Distributed Generator's and CPS's personnel and property, the continued provision of electric service to Distributed Generator, the continued maintenance of an interconnection between Distributed Generator and CPS, and the reliable functioning of CPS's overall system operations, the following operational and maintenance procedures shall be observed:

A. CPS System Responsibility

CPS maintains a Generation Control and Transmission and Distribution Control Center on a 24-hour basis for the purpose of coordinating the operation of all Transmission, Distribution, and Generation facilities at CPS. CPS's System Operator will have the ultimate responsibility for carrying out the procedures described herein with Distributed Generator. Telephone numbers for normal and emergency situations and a one-line diagram of Distributed Generator's facility shall be provided to CPS System Operations. The Distributed Generator may be required to have an on site or on call person that can take orders from the CPS System Operators any time the Generator is on line and generating energy or reactive power into the CPS Grid.

CPS is a member of the Electric Reliability Council of Texas (ERCOT) and operates its system in accordance with the operating criteria and guidelines of ERCOT. As a result, CPS may interrupt service to Distributed Generator in the event of an ERCOT declared emergency or as directed by ERCOT Operations. Emergencies may arise anywhere on the interconnected system of which CPS is a part. If in CPS's sole judgment, such emergency poses a threat to the area power supply and service interruption may prevent or alleviate the emergency condition, Distributed Generator may be called upon by CPS's System Operator to operate necessary switches, breakers, reduce generation, change reactive output, etc. in order to prevent or alleviate such an emergency condition.

CPS shall maintain any SCADA (Supervisory Control and Data Acquisition) equipment which may be installed at Distributed Generator's facility to communicate with CPS's Transmission and Distribution Center.

CPS shall make a reasonable attempt to notify the Distributed Generator the preceding CPS business day in advance of any scheduled switching for distribution lines serving Distributed Generator.

CPS may disconnect from Distributed Generator for violation of CPS's rules pertaining to the use of such service or the interconnection between CPS and Distributed Generator in a manner which interferes with the service of others by CPS or the operation of non-standard equipment. A reasonable attempt shall be made by CPS to notify Distributed Generator and provided the Distributed Generator with a reasonable opportunity to remedy the situation.

B. Distributed Generator's System Responsibility

Only authorized employees of CPS are permitted to make and energize the connections between CPS's service wires and Distributed Generator's service entrance conductors. Distributed Generator assumes all responsibility for the electrical system on the Distributed Generator's side of the Point of Interconnection. If the Point of Interconnection is defined in the interconnection agreement between CPS and the Distributed Generator, that definition overrides the following definition:

The Point of Interconnection is defined as the terminals of the Power Station Isolating Switch on the Distributed Generator's facility side.

Distributed Generator shall make a reasonable attempt to notify CPS at least 24 hours in advance of any scheduled switching Distributed Generator wishes CPS to execute. .

Distributed Generator will install, operate and maintain all wiring and apparatus in such condition and/or manner as not to endanger persons or property, or to cause impairment of CPS's interconnection and service to Distributed Generator, or any of CPS's distribution customers .

Distributed Generator shall coordinate operation of its system with CPS to ensure that the overall CPS system operation will be consistent with ERCOT operating criteria and guidelines as applied by CPS and provided to the Distributed Generator.

Distributed Generator shall follow all switching instructions provided by CPS's System Operator.

Distributed Generator shall promptly notify CPS's System Operator of all internal system conditions that could affect CPS's distribution system. All communications with the CPS's System Operator shall reference the Distributed Generator's facility two character mnemonic name (if applicable) and applicable equipment numbers as designated by CPS on the one-line diagram attached.

Distributed Generator shall provide and maintain a telephone in its facility connected to an outside telephone line independent from Distributed Generator's internal telephone system (if there is one). This ensures telephone communications should Distributed Generator's internal switchboard become inoperable.

Distributed Generator shall provide CPS's authorized representatives access to Distributed Generator's premises at all reasonable hours for the purpose of inspecting CPS's wiring and apparatus, erecting, removing or replacing CPS's facilities at the Point of Interconnection, reading CPS's meters and for all other purposes connected herewith.

Distributed Generator shall, after reasonable notice by CPS, repair, replace or disconnect equipment which violates the CPS Technical Requirements for limiting harmonics, voltage fluctuations or other problems that interfere with CPS's supply of electric service to other customers.

Distributed Generator is responsible for providing all facility equipment in accordance with CPS's applicable specifications, both initially and from time to time thereafter, whenever changes in the CPS's distribution system (including the distribution system's monitoring and protection devices) requires such changes in the facility in order to maintain its compatibility with the CPS's distribution system. Prior to the replacement or modification of any high voltage equipment, Distributed Generator shall, first notify CPS of the replacement or modification, submit specifications to CPS and obtain CPS's approval of compatibility with CPS's distribution system.

C. CPS Maintenance Responsibility

CPS performs periodic maintenance on its' equipment. Such maintenance on CPS equipment at the Point of Interconnection may require scheduling approximately an eight hour outage annually during normal working hours. Such outage of Distributed Generator's equipment will typically be coordinated to coincide with Distributed Generator's annual maintenance schedule. If applicable, the Distributed Generator's prime mover overhaul schedule shall be on file in the CPS System Operators office and must be done for a period of at least one year. Any changes to such schedule shall be reviewed and approved by CPS.

CPS shall inspect the following devices, instruments, and systems (if installed):

1. Revenue metering equipment owned by CPS. This equipment shall be inspected on a reasonable basis not more often than every two months. CPS will maintain and replace this equipment as necessary.
2. CPS owned high voltage instrument transformers. A power outage to Customer's equipment is required for the maintenance of the revenue metering or control instrument transformers at the Point of Interconnection.
3. All SCADA equipment at the Point of Interconnection. CPS will maintain this equipment as necessary.
4. Protective relays as specified on CPS's relay test sheets.

CPS will set and maintain these relays as necessary. This will include out-of-case testing. Breaker trip testing will be performed at the same time if CPS and the Distributed Generator agree. CPS will provide Distributed Generator copies of the results of the annual relay tests upon request and notify Distributed Generator of any protective relay equipment requiring repair or replacement.

5. All communication equipment used with distribution line protective relaying including periodic performance testing. Distributed Generator will be notified of any problems or irregularities found.

D. Distributed Generator Maintenance Responsibility

Distributed Generator agrees to install, operate and maintain all wiring and apparatus in such condition and/or manner as not to endanger persons or property, or to cause impairment of CPS's interconnection and service to Distributed Generator, or any of CPS's distribution customers.

Distributed Generator shall inspect and maintain all facility structures and equipment provided by Distributed Generator on an industry or manufacturer's recommended basis.

If CPS does not do the periodic breaker trip testing by mutual agreement with the Distributed Generator, Distributed Generator will conduct periodic breaker trip testing and notify CPS in advance of such testing so that CPS may witness such tests.

Distributed Generator will visually inspect and conduct periodic maintenance on any facility batteries as recommended by manufacturer. Distributed Generator will provide CPS copies of test reports and any corrective action taken.

E. Switching Scope and Guidelines

Switching of CPS equipment is required for equipment outages to allow CPS to perform maintenance and construction and for Distributed Generator to perform maintenance and construction. CPS and Distributed Generator activities should be coordinated whenever possible to reduce switching requirements. To facilitate this process, the following requirements have been included for guidance:

When switching CPS equipment is desired for maintenance or operation of Distributed Generator's system, Distributed Generator shall contact CPS's System Operator during CPS's regular business hours at least 24 hours in advance, but not later than 2:00 P.M. on the day preceding such planned switching and explain the nature of the request. If CPS's System Operator approves the switching, Distributed Generator must notify CPS's System Operator at the scheduled time immediately prior to proceeding with the planned switching.

In addition to outages for scheduled maintenance by Distributed Generator or CPS, switching may be required at the Point of Interconnection as a result of defective equipment being found, failed equipment and emergency situations. In these situations, both CPS and Distributed Generator agree to provide any required switching as promptly as reasonably possible.

- (a) To remove a transformer from service, all loads should be removed first.
- (b) To remove line equipment from service, switching at remote CPS or other customer facilities is required. Distributed Generator must request an outage as previously described. CPS will provide all switching on the CPS side of the Point of Interconnection.

Distributed Generator and CPS shall abide by each other's isolation procedures, including but not limited to abiding by the intent of isolation tags, locks or written notices of both parties.

F. Equipment Identification

CPS may display and mount signs, stickers, drawings, telephone numbers, and instructions pertaining to the scheduled maintenance or emergency operation of Distributed Generator's system on outside equipment and inside. Pre-certified equipment shall also be labeled by the Distributed Generator in accordance with the Pre-certification Requirements.

G. Clearance Procedures

It is CPS's practice that Distributed Generator must obtain clearance from CPS System Operator for any maintenance activities requiring the outage of CPS's distribution lines at the Point of Interconnection. When an outage of distribution line apparatus is desired, the following procedure for securing a clearance will apply:

1. A clearance request is made to CPS's System Operator. CPS's System Operator shall give switching instructions to CPS personnel to accomplish switching at Distributed Generator's facility and contact any other CPS operators or crews necessary to accomplish switching at remote terminals.
2. Distributed Generator and/or CPS personnel shall place safety or "hold" tag on switches when they are opened. Tagging of equipment remote from Distributed Generator's system shall be done by CPS personnel.
3. CPS's System Operator shall give the clearance in the name of the party requesting it. CPS will use designated CPS personnel to check that the procedures of the clearance are completed by the Distributed Generator before the prior to final approval. In the event more than one crew is working on a line, each crew shall secure clearance. CPS is responsible for placing grounds on CPS tie point.
4. When a switch in Distributed Generator's system is tagged mutually by Distributed Generator and CPS personnel, the first operator desiring to remove his tag shall notify CPS's System Operator that he is removing his tag and that there is still a tag on the switch. Neither CPS nor Distributed Generator shall operate the switch until the operator whose tag is still on the switch has notified CPS's System Operator that he is removing his tag.
5. Release of all clearances and removal of all grounds are required before "hold" tags are removed and any switches closed. "Hold" tags are removed only after the clearance is released by the individual who secured the clearance and switching instructions are received from CPS's System Operator.

H. Grounding Procedures

CPS shall place safety grounds on CPS equipment when required for maintenance procedures. All grounding on the Distribution Generator side will be performed by the Distribution Generator personnel. The operator providing maintenance is responsible for placing safety grounds around the equipment to be maintained. No safety grounds should be placed where a switching device could be opened, removing the protection of a safety ground(s). The number and locations of all grounds should be provided to CPS's System Operator.

All grounds must be removed before "hold" tags are removed from switches.

I. Fault Initiated Outages

After automatic tripping of the Distributed Generator due to an interruption of CPS service at the Point of Interconnection (due to a fault or other system disturbance), Distributed Generator shall notify CPS's System Operator. Items 1, 2, and 3 below are most important and should be reported as soon as possible. Items 4 and 5 should be reported as soon as the information is available.

1. Present position of circuit breakers or switches (open or closed).
2. Time of outage.
3. Any information which might be helpful in determining the cause of the outage.
4. Indication flags of any relays which initiate trips to the CPS circuit breaker at the Point of Interconnection (if applicable). Distributed Generator shall make a notation of the relay flags and will not reset flags without permission from CPS's System Operator. CPS reserves the right to reset relay flags.
5. Circuit breaker operations counter reading on CPS circuit breaker at the Point of Interconnection (if applicable).

J. Distributed Generator Operations

1. As soon as practical, Distributed Generator shall notify CPS of any potential problems or of any forced outages and the expected duration thereof.
2. In the event Distributed Generator's is isolated from the CPS's system, Distributed Generator shall notify CPS's System Operator before attempting to resynchronize with CPS's system.
3. Any records maintained or accessible to the Distributed Generator concerning an operating log with records of real and reactive power production, changes in operating status, scheduled and forced outages, and any unusual conditions found during any inspections shall be provided to CPS upon request within thirty (30) days of CPS's request.

K. Distributed Generator's Operational Reactive Support Responsibility

If CPS studies determine Distributed Generator should be operated to support the distribution system voltage by regulating volt-amps reactive output, this regulation shall be accomplished in accordance with the following:

1. CPS's System Operator shall be responsible for monitoring overall system conditions and Distributed Generator shall take such corrective action as CPS's System Operator may require.
2. Generator shall maintain the distribution voltage level provided by CPS's System Operator up to the reactive levels stated by the CPS. If the Distributed Generator is categorized by ERCOT as subject to ERCOT reactive supply requirements, CPS shall require the Distributed Generator to

meet the minimum requirements for reactive VAR support as outlined in the ERCOT reactive support requirements for all connected Generators. Distributed Generator must submit all reactive support tests as required by the ERCOT compliance templates to the CPS Control Center for submission ERCOT.

3. The Distributed Generator's voltage regulators must have characteristics acceptable to CPS and must be in service at all times.

4. In the event a generating unit's voltage regulator is out of service, Distributed Generator shall immediately notify CPS's System Operator.

5. Distributed Generator shall maintain its speed governor settings as required in CPS Technical requirements. Yearly testing must be done and the test results submitted to the CPS Control Center.

6. Distributed Generator shall maintain its speed governor in service when operating synchronous to CPS unless blocked due to a temporary operating problem. Distributed Generator shall immediately notify CPS's System Operator when blocked.

L. Amendment Procedure

These procedures may be amended from time to time by CPS to reflect subsequent changes in CPS's Rate Structure for Electric Service approved by the San Antonio City Council or to account for significant modifications in the manner in which Distributed Generator is connected to CPS's system. Notice of such amendment(s) will be mailed to Distributed Generator.