Fill out the Common fields below. These will automatically populate throughout the Operating Agreement. Review the Operating Agreement for accuracy and correctness. Do not print this page.

**Project Information**

Project Name: Project Name

Customer Name: Customer or Owner’s Name

Local APS Transmission Lines/Facilities: APS Facilities

Address/Location: Project’s Address

Generating or Load Facility: Generating / Load

**Project Name**

**POWER OPERATIONS** **OPERATING AGREEMENT**

Between

Arizona Public Service Company

And

Customer or Owner’s Name

1. **General Information**
   1. Arizona Public Service Company (“APS”) owns, operates, maintains and has operating jurisdiction over certain facilities and equipment that constitute the APS transmission system. APS is also identified as the transmission owner, transmission operator and transmission provider under NERC. The specific transmission facilities regarding this Power Operations Operating Agreement are: APS Facilities.
   2. Customer or Owner’s Name (Customer) [owns yes/no], operates, maintains and has operating jurisdiction over the [XX] MW Generating / Load facility and associated equipment identified as the Project Name and is identified as the System Operator for this facility [or identifies here who the System Operator is]. This generating facility is located on customer-owned property at Project’s Address. This Generating / Load facility [delivers/receives] electrical energy [to/from] the APS-owned transmission system via the APS-owned APS Facilities under a separate interconnection agreement.
   3. APS and/or Customer’s System Operator may also be referred to as Party, or Parties in this Power Operations Operating Agreement.
   4. By signing this Power Operations Operating Agreement, the Customer’s System Operator agrees that they have been provided with a current copy of the “APS Transmission Power Operations Administration, Business Unit Standard, Power Operations Operating Agreement Requirement”.
   5. Under no circumstance will the Generating / Load facility interconnected to the APS operated transmission system be allowed to be placed in-service or maintained in-service (in parallel with the APS transmission system) without a fully executed and valid Power Operations Operating Agreement in-effect.
   6. The APS-owned APS Facilities may also be identified as [EMS Identifier] on APS prints, diagrams and the APS Energy Management System (“EMS”) screens. The [EMS Identifier] Substation is located on the APS Facilities.
   7. The Customer or Owner’s Name [delivers/receives] energy through the Project Name substation which contains a [xx/xxkV] step-up transformer. APS refers to this Customer substation as the “[EMS name for the facility]” on the appropriate APS EMS screens and may also refer to it as such on internal prints, diagrams and documents.
   8. This Power Operations Operating Agreement clarifies operating jurisdictions and maintenance responsibility jurisdictions (as contained in the interconnection agreement) for equipment and facilities contiguous to the electrical operating boundary for the Project Name.
   9. Each Party shall keep a current copy of this Power Operations Operating Agreement on-file for access by each Party’s authorized System Operator.
2. **Operating and Maintenance Jurisdiction**
   1. APS has operating authority over all equipment and facilities from the APS transmission system to the Change of Operating Authority Point (see Definition).
   2. APS has maintenance responsibility over all equipment and facilities from the APS transmission system to the Change of Ownership Point (see Definition).
   3. Customer has operating authority over all equipment and facilities on the property identified in 1.b. above, up to the Change of Operating Authority Point (see Definition).
   4. Customer has maintenance responsibility over all equipment and facilities on the property identified in 1.b. above, up to the Change of Ownership Point (see Definition).
3. **Contacts**
   1. APS and the Customer’s System Operator shall supply a contact list of authorized personnel for contact regarding Planned Work, Emergent Work and for Emergency Conditions. The list is attached to this Power Operations Operating Agreement as Attachment A.
   2. Per the “APS Transmission Power Operations Administration Business Unit Standard, Power Operations Operating Agreement Requirement” (see 1.d. above and 14 below), APS and/or the Customer’s System Operator shall notify the other Party of changes to the contact list (Attachment A) within five (5) Business Days of such changes to remain valid. The only exception to this notification period will be the circumstance where a Party has identified more than one authorized person on Attachment A. In this case, as long as at least one accurate contact for an authorized person for each Party remains intact on Attachment A, a deletion or removal of one or more of the contacts by a Party may be notified to the other Party at the time of the annual confirmation of Attachment A information that occurs by December 15th of each year, or earlier. In this specific case, the Power Operations Operating Agreement remains valid.
   3. When APS is in receipt of updated Attachment A contact information, an updated Attachment A will be provided to the Customer’s System Operator within ten (10) Business Days of receipt of such changes.
4. **Definitions**

**Business Day** - shall mean Monday through Friday, excluding Federal Holidays.

**Change of Operating Authority Point -** The point where the APS-owned conductor (jumper) bolts to the APS-side of the first Customer switch identified as [XXXXX]. (See 2.a. and 2.c.)

**Change of Ownership Point -** The point where the APS-owned conductor (jumper) bolts to the APS-side of the first Customer switch identified as [XXXXX]. (See 2.b. and 2.d.)

**Clearance** (as defined by the APS Accident Prevention Manual, as may be updated from time-to-time) -

a. A Clearance is a statement by one having complete authority over all parts of a circuit or piece of electrical equipment that said circuit or equipment is disconnected from all known sources of power. It is assurance that all proper precautionary measures have been taken and workers may proceed with grounding the circuit.

b. A Clearance further guarantees the circuit or equipment will remain in the condition stated until released by the person possessing the Clearance. Should the work require that you change or alter a Clearance Point in any way, such as moving a tag, changing a Clearance Point identification, altering a locking mechanism, etc., contact must be made with the appropriate System Operating Center. Mutual understanding must be established as to the work scope and needs. A note shall be attached to the Clearance identifying the changes or, if necessary, your Clearance will be released and a new Clearance will be issued.

**Clearance Point** - A Clearance Point is established so a Clearance can be issued. No work shall be performed on a Clearance Point once a Clearance has been issued. A Clearance is solely for the protection of the crew members and those that need to work on a section of line or equipment. It shall not be compromised at any time in any way. It is the responsibility of the Journeyman involved and System Operator to assure the Clearance Points are correct and will cover the scope of the work to be done

**Contact Tag -** The type of tag used to indicate that a device or circuit will NOT automatically reclose or NOT be manually reclosed should a fault occur in an area protected by that device. (Be aware that other synonymous terms may be in-use by some other entities such as” Hold Order, Hot Line Hold, Non-Reclose Order, Do Not Reclose Tag, etc.)

**ECC -** The APS Energy Control Center, which is manned 24/7 by ECC Supervisors. The APS ECC is defined as APS’s system operator under OSHA 1910.269 covering all APS transmission lines up to the Change of Operating Authority Point.

**Emergency Condition** - shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of a Transmission Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to Transmission Provider's Transmission System, Transmission Provider's Interconnection Facilities or the electric systems of others to which the Transmission Provider's Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-  
discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by the Standard Large Generator Interconnection Agreement to possess black start capability.

**Emergent Work –**

**69kV** work (or lower voltage if applicable) that is scheduled with the other Party to occur in less than ten (10) Business Days in-advance of the start of work (and is therefore not “Planned Work”) and is not classified as an Emergency Condition.

**Above 69kV** work that is scheduled with the other Party to occur in less than twenty (20) Business Days in-advance of the start of work (and is therefore not “Planned Work”) and is not classified as an Emergency Condition.

**NERC** – The North American Electric Reliability Corporation, the electric reliability organization certified by the Federal Energy Regulatory Commission (FERC) to establish and enforce reliability standards for the bulk power system.

**Planned Work -**

**69kV** work (or lower voltage if applicable) that is scheduled with the other Party to occur at least ten (10) Business Days in-advance of the start of work.

**Above 69kV** work that is scheduled with the other Party to occur at least twenty (20) Business Days in-advance of the start of work.

**Power Operations Operating Agreement –** This document, when fully executed and dated, which determines the operating policies and procedures that impact the electrical boundary interface between APS and Customer or Owner’s Name - Project Name.

**Release of Clearance** - is a statement by an existing Clearance Holder of a Clearance releasing ownership and responsibility of that Clearance back to the Recognized System Operator with the understanding that work is complete, all personnel are in the clear, and all grounds and shorts are removed.

**System Operator** – As defined in OSHA 1910.269: "System operator" A qualified person designated to operate the system or its parts.

1. **Uniform Line Identifiers** (Supports NERC TOP-002a-2 R18)

|  |  |  |
| --- | --- | --- |
| **Station** | **Line** | **Device** |
| [Interconnected Facility] Substation | Last Customer-owned switch (visible open) before Change of Operating Authority Point | XXXXX |
| APS XXXXXX xxkV Substation | Last APS-owned system switch (visible open) before Change of Operating Authority Point | XXXXX |
| APS XXXXXX xxkV Substation | Last APS-owned system Circuit Breaker before Change of Operating Authority Point (ring bus configuration) | XXXXX  And  XXXXX |

**[Note that the specific equipment identified in this table will be dependent upon the interconnection facilities configuration.]**

1. **Communications Between System Operators** – APS utilizes the NERC required three-way communications protocol. APS requires that the Customer’s System Operator to be familiar with this protocol and to utilize it in communications with the APS ECC. This protocol consists of: issuing clear and concise directives by stating the directive, requiring the recipient of the directive to repeat the information back correctly, and then acknowledging the response as correct or repeating the original statement to resolve any misunderstandings. (Supports NERC Comm-002-2)

1. **WECC/NERC Reliability Coordination Standard for Generators/Operators beyond the APS Point of Interconnection** – Generators/Operators must submit line and transformer outage data for any equipment on the Customer’s side of the APS Point of Interconnection. Generators/Operators have the responsibility to remain in compliance with the most current version of the NERC TADS (Transmission Availability Data System) submittal which can be found in the WECC TRD (Transmission Reliability Database) Data Reporting Instruction Manual.
2. **Planned Work Requests**
3. The Parties agree that all Planned Work requests will be coordinated between an authorized Party representative from Attachment A as appropriate.
4. All Planned Work requests will be scheduled by the APS Energy Control Center (ECC) System Operations Planner or the Customer authorized representative with the other Party at least ten (10) Business Days prior to the start of work being performed at 69kV (and lower voltages as applicable), or at least twenty (20) Business Days prior to the start of work being performed at voltages above 69kV.

1. For all APS work requests that require the Customer to de-energize equipment, APS will request that the Customer’s System Operator open the appropriate breakers and/or switches and the Customer System Operator will issue a Clearance to the APS ECC Supervisor on the appropriate isolating disconnect switch(s) and/or other equipment modeled after the Clearance Procedures in this document, if a Clearance is required.
2. Planned Work requests that need to be canceled or rescheduled by one of the Parties must be canceled or rescheduled at least two (2) Business Days prior to the start of the subject Planned Work.
3. For transmission system reliability and safety reasons, APS may need to cancel or reschedule Planned Work at any time based upon transmission system conditions.
4. **Emergent Work**
5. The Parties agree that all Emergent Work requests will be coordinated between an authorized Party representative from Attachment A for Emergent Work as appropriate.
6. All Emergent Work will be handled on a case-by-case basis depending on current APS Planning workload and system conditions.
7. For transmission system reliability and safety reasons, APS may need to not approve, cancel or reschedule Emergent Work at any time based upon transmission system conditions.
8. **Emergency Condition Work Requests Procedures for work requiring a Clearance**Emergency Condition Work requests will be coordinated by the APS ECC Supervisor and appropriate Customer’s System Operator contact (Attachment A) at the time of the Emergency Condition (real time) or as soon as practical based on current system conditions. For Emergency Condition Work requests that require equipment to be de-energized and grounds installed, a Clearance will be issued to either the Customer’s System Operator or APS ECC, depending upon which Party requires the Clearance for Emergency Condition Work.
9. **Clearance Procedures**
10. For a party to accept a Clearance, the party receiving a Clearance will read the Clearance statement back to the issuer. Below are examples of a Clearance statements issued by the APS ECC Supervisor or Project Name System Operator:

*"At (time) APS ECC Supervisor issues Clearance # to* Project Name *System Operator (name) that APS XXXXX 69kV disconnect XXXXX is open, locked and tagged.”*

*Or*

*"At (time) Project Name System Operator issues Clearance # to APS ECC (name) that* Project Name *disconnect XXXXX is open, locked and tagged.”*

*Or*

*"At (time) APS ECC Supervisor issues Clearance # to APS crew on the APS XXXXX 69kV Substation to (name) that Project Name 69kV line from XXXXX up to XXXXX at Project Name* *69kV Substation.*

**In all cases, the APS ECC supervisor will be responsible for issuing an overall line Clearance to APS crews.**

**In all cases, a Project Name** **System Operator will be responsible for issuing an overall Clearance to Customer crews.**

1. For all Customer work requests that require APS to de-energize equipment, Customer will request that the APS ECC open the appropriate breaker and/or switches and the APS ECC Supervisor will issue a Clearance to the requesting the Customer’s System Operator on the isolating disconnect switch or visual open point modeled after the Clearance procedures prescribed in this document.
2. For all APS ECC work requests that require the Customer’s System Operator to de-energize equipment, the APS ECC will request the Customer’s System Operator to open the appropriate breaker and/or switches and the Customer’s System Operator will issue a Clearance to APS ECC on the isolating disconnect switch or visual open point per the Clearance procedures prescribed in this document.
3. **Contact Tag Procedure**
4. For a Party to accept a Contact Tag, the Party receiving a Contact Tag will read the Contact Tag statement back to the issuer. Below are examples of a Contact Tag statement issued by the APS ECC Supervisor:  
    *"At (time) APS ECC Supervisor\_\_\_\_\_\_\_\_\_\_\_\_\_\_ issues a Contact Tag to Project Name* *System Operator on the XXXXX XXkV substation terminal b****r****eakers of the XXXXX to XXXXX Project Name* *69 kV line. The following devices are tagged at XXXXX 69kV Substation, XXXXX and XXXXX.”*

**In all cases, the APS ECC supervisor will be responsible for issuing an overall line Contact Tag to APS crews.**

**In all cases, Customer** **will be responsible for issuing an overall line Contact Tag to Customer crews.**

1. For all Customer Contact Tag requests that require APS to issue a Contact Tag(s), the *Project Name* System Operator will request that the APS ECC tag the appropriate breakers and the APS ECC Supervisor will issue a Contact Tag to the requesting *Project Name* System Operator on the appropriate line terminal breakers.
2. For all APS ECC Contact Tag requests that require the Customer’s System Operator to issue a Contact Tag(s), APS ECC will request that the *Project Name* System Operator tag the appropriate breakers and the *Project Name* System Operator will issue a Contact Tag(s) to the requesting APS ECC on the appropriate line terminal breakers.
3. **Emergency Condition Work Requests Procedures for work requiring a Contact Tag**Emergency Condition Work requests will be coordinated by the ECC Supervisor on-shift and the *Project Name* System Operator on duty at the time of the Emergency Condition.
4. **Special Operational Considerations –** Special operational considerations discovered in the interconnection study process, engineering & construction process, and/or the in-servicing process will be captured here for all Parties System Operators to be aware of. This may section may be updated over time in revised versions of this Power Operations Operating Agreement as situations of operational concern make themselves visible. If no known special operational considerations are known, this section will remain intact as stated here for future use.
5. **Validity**

Per the “APS Transmission Power Operations Administration Business Unit Standard, Power Operations Operating Agreement Requirement” (see 1.d. above), to be valid, this Power Operations Operating Agreement:

* 1. Must be signed and dated by all Parties; and,
  2. Attachment A contact information must be complete, accurate and up-to-date. (See 3.b. for exception)
  3. To remain as a valid Power Operations Operating Agreement, the Parties agree that the Attachment A data must remain accurate and up-to-date. And further agree that the other Party will be advised within a minimum of five (5) Business Days of the date of any changes to information contained in this agreement and Attachment A. (See exception in 3.b.)

1. **Effective Date**

This Power Operations Operating Agreement is effective upon the date of final signature and shall remain in effect until cancelled or superseded by mutual agreement of the Parties to this Power Operations Operating Agreement, as may be revised from time to time as necessary, or upon failure to remain valid.

**For Customer or Owner’s Name**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name (printed)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title

**For Arizona Public Service Company, Transmission Power Operations Administration**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name (printed)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title

**ATTACHMENT A**

**CONTACT LIST**

As of: March 13, 2013

**CONTACT LIST FOR PLANNED or EMERGENT WORK**

**APS System Operations Planning (M-F 07:00 MST to 16:00 MST)**

**ECC System Operations Planners**

1. David Nigh – Section Leader (602) 371-5631 Office

[David.Nigh@aps.com](mailto:David.Nigh@aps.com) (602) 818-6379 Mobile

1. Chris Demichele (602) 250-1372 Office

[Christopher.DeMichele@aps.com](mailto:Christopher.DeMichele@aps.com) (602) 300-4102 Mobile

1. Ron Stapleton (602) 250-1499 Office

[Ronald.Stapleton@aps.com](mailto:Ronald.Stapleton@aps.com) (602) 478-1206 Mobile

1. Dan Simpson (602) 250-1263 Office

[Daniel.Simpson@aps.com](mailto:Daniel.Simpson@aps.com) (602) 315-2142 Mobile

1. Jeff Faulkner (928) 773-6305 Office

[Jeffery.Faulkner@aps.com](mailto:Jeffery.Faulkner@aps.com) (928) 890-9418 Mobile

1. Josh Tweedy (602) 250-1962 Office

[Josh.Tweedy@aps.com](mailto:Josh.Tweedy@aps.com) (602) 300-2597 Mobile

1. Alan Blanding (602) 371-7237 Office

[Alan.Blanding@aps.com](mailto:Alan.Blanding@aps.com) (480) 784-7611 Mobile

**Mailing Address:**

Arizona Public Service Company

Energy Control Center – System Ops Planning

2124 West Cheryl Drive, MS 3262

Phoenix, AZ 85021

**CONTACT LIST FOR PLANNED or EMERGENT WORK** (Continued)

**Customer or Owner’s Name – *Project Name***

**Primary Contact:**

Name

Title

Company Affiliation

Mailing Address

Office XXXXXX Mobile XXXXXX

Email Address: [xxxxxxxxxx@xxx.xxx](mailto:xxxxxxxxxx@xxx.xxx)

**Alternate Contact:**

Name

Title

Company Affiliation

Mailing Address

Office XXXXXX Mobile XXXXXX

Email Address: [xxxxxxxxxx@xxx.xxx](mailto:xxxxxxxxxx@xxx.xxx)

**CALL LIST FOR EMERGENCY CONDITION WORK**

**APS ECC Supervisor** (24 hours, 7 days a week)

Primary Number (602) 250-1080

Alternate Number (602) 250-1070

**Customer or Owner’s Name – *Project Name*** (24 hours, 7 days a week)

Primary Number (xxx) xxx-xxxx

Alternate Number (xxx) xxx-xxxx

Or, if to individuals:

**Primary Contact:**

XXXXXX

Title (xxx) xxx-xxxx

**Alternate Contact:**

XXXXXX

Title (xxx) xxx-xxxx

**Version Table:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Version | Effective Date | Change Tracking | Reviewed By | Approved By | Standard No. |
| 1.0 | 1/30/2013 | Original | Omeara, Raetz, Hammond | Steve Norris | NERC FAC-001  NERC TOP-002-2 R18  NERC Comm-002-2 |
| 2.0 | 3/13/2013 | Added emphasis on WECC/NERC reporting responsibility to Customer | Nigh, Henrickson, Spina |  | NERC FAC-001  NERC TOP-002-2 R18  NERC Comm-002-2 |
| 2.1 | 8/8/2013 | Automate common fields | Nigh, Steinhoff, Blanding |  | NERC FAC-001  NERC TOP-002-2 R18  NERC Comm-002-2 |

ARS – 8/8/2013 – v 2.0