

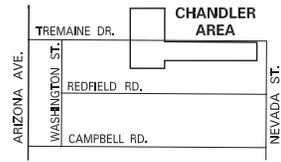
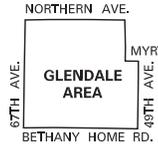
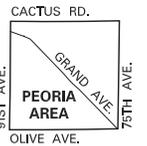
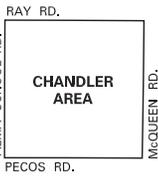
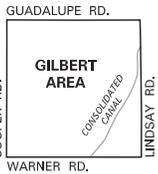
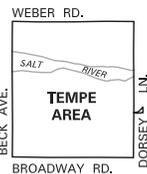
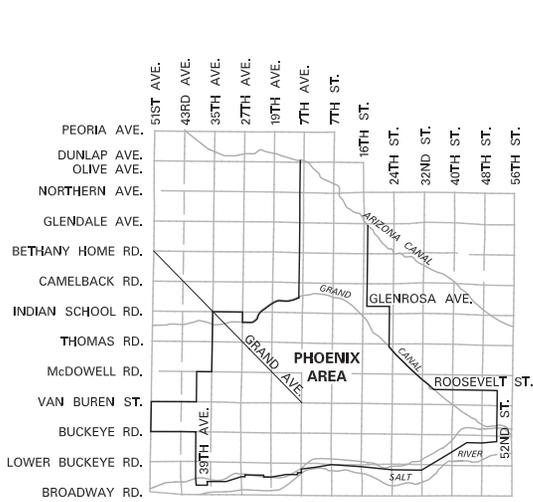
# SECTION 1 GENERAL INFORMATION

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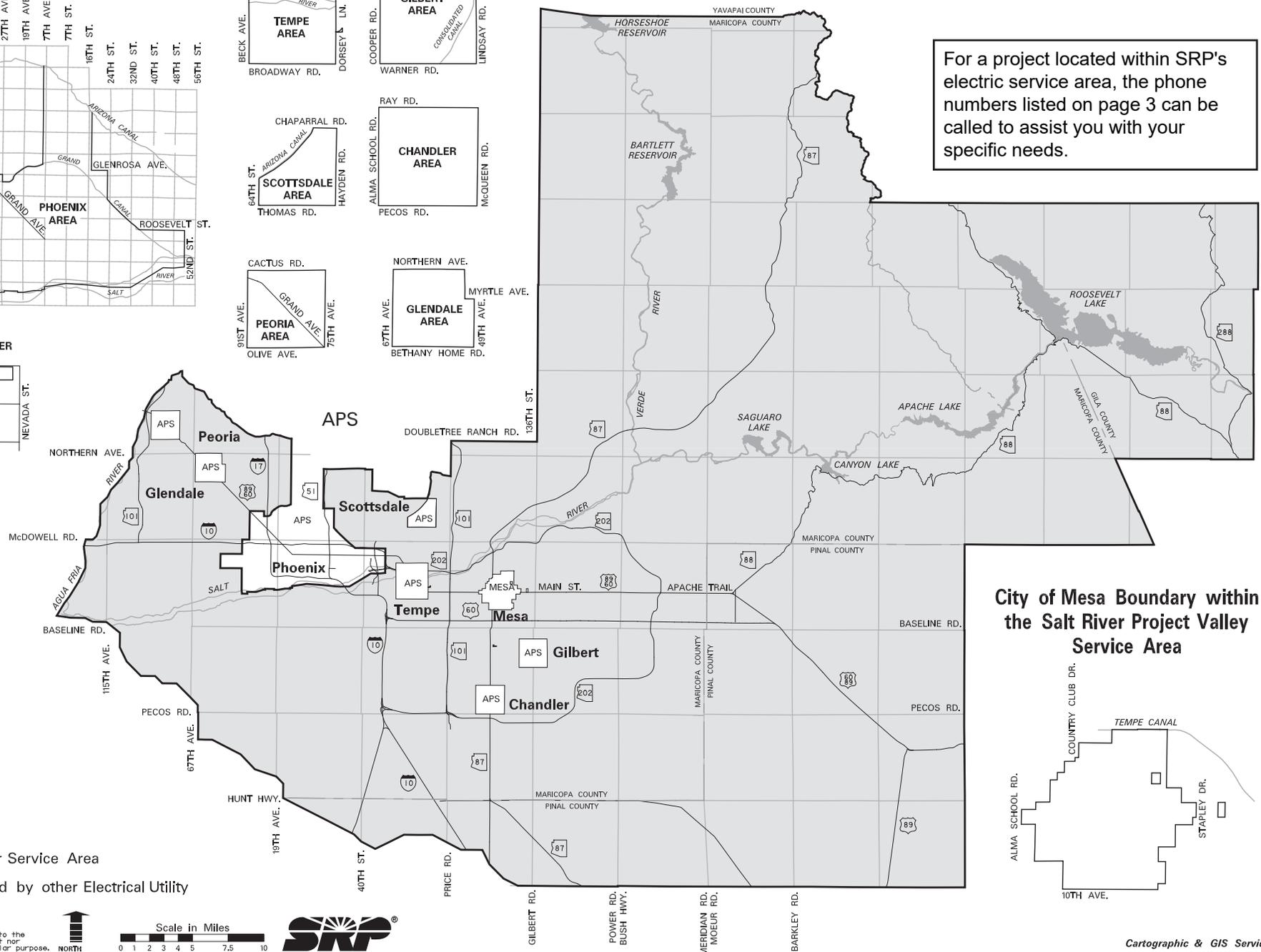
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# APS Boundaries within the Salt River Project Valley Service Area

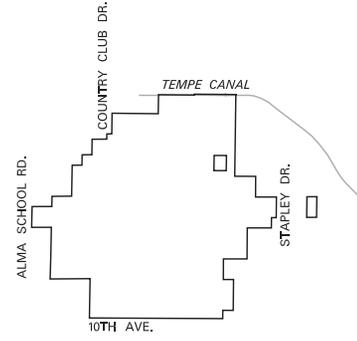
# SRP ELECTRIC SERVICE AREA



For a project located within SRP's electric service area, the phone numbers listed on page 3 can be called to assist you with your specific needs.



## City of Mesa Boundary within the Salt River Project Valley Service Area



**LEGEND:**  
 [Shaded Area] SRP Power Service Area  
 [White Area] Area served by other Electrical Utility

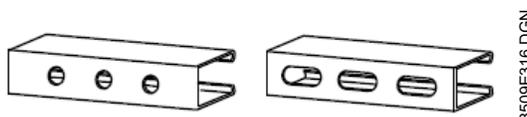
© 2010 Salt River Project (SRP)  
 SRP makes no representation as to the accuracy of this mapping product nor as to its fitness for a particular purpose.



## GLOSSARY

*The following terms, when used herein, shall have the meaning specified.*

1. **Available Interrupting Current (AIC):** Minimum breaker fault current interrupting capability.
2. **All-In-One Service (SES):** A service entrance section containing at minimum a meter socket compartment and a service disconnect manufactured in the same equipment housing.
3. **American Wire Gauge (AWG):** The AWG assigns a number to a particular size of wire according to circular mill area to a maximum size of #0000.
4. **Authority Having Jurisdiction (AHJ):** Governmental agencies and municipalities having responsibility for public safety.
5. **Blue Stake Law:** Arizona Revised Statutes, Chapter 2, Article 6.3, Sections 40-360.21 through 40-360.32.
6. **Building:** A structure that stands alone or is separated from adjoining structures by fire walls (minimum two-hour rated) with all openings therein protected by fire doors.
7. **Campus:** Customer location having multiple buildings served by multiple SES that is not separated by private or public property or right-of-way and must be operated as one integral unit with all accounts in a single common entity name.
8. **Channel:** Pre-manufactured metal framing with compatible fasteners.



9. **Coincident Load:** The total demand placed on SRP's distribution system by the SES under consideration during a 30-minute time interval as recorded in SRP's billing system.
10. **Contributions In Aid Of Construction (CIAC):** Financial contributions provided by the Customer for construction of electrical facilities.
11. **Cost or Expense:** The cost of all materials and equipment, labor and other definite charges applicable thereto, plus a reasonable percentage for engineering, purchasing, the use of construction equipment and other costs of a general character, involved in connection with the work to be performed.
12. **Critical Load:** Load that cannot be readily disconnected due to public health and/or safety concerns.
13. **Customer:** Any person utilizing services from SRP.
14. **Customer-Owned Services:** A service lateral provided, installed, owned and maintained by the Customer, complying with the authority having jurisdiction, where the point of delivery is usually the secondary bushings of the supplying transformer.
15. **Distribution Design:** The SRP group responsible for design of intended electrical facilities.
16. **Distributed Energy Resource (DER):** Independent electricity generating or storage technologies interconnected to SRP's distribution system.
17. **Distributed Energy Resource (DER) Generation:** The generation of electricity via a distributed energy resource (photovoltaic systems, wind generation, etc.).

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## GLOSSARY

*The following terms, when used herein, shall have the meaning specified.*

18. **Distributed Energy Resource (DER) Storage:** The storage of electricity either drawn from the grid or from a DER generation source.
19. **Electric Service Specifications (ESS):** An SRP manual intended as a guide for making electrical installations or modifications, while protecting the interests of the Customer and complying with regulations, which experience has shown, are necessary for safe, adequate and satisfactory service. These standards are also available online at [srpnet.com/electric/business/specs/Default.aspx](http://srpnet.com/electric/business/specs/Default.aspx).
20. **Electrical Clearance:** The approval of an electrical installation by the city or county having jurisdiction as an indication of compliance with its standards.
21. **Electronic Marker:** A passive antenna, which is installed over underground facilities that uses an electronic transmitter to allow future location of these facilities.
22. **Electrical Metallic Tubing (EMT):** A non-flexible, non-corrugated raceway designed specifically for electrical cables. Also commonly called thin-wall.
22. **Electric Utility Service Equipment Requirements Committee (EUSER or EUSERC):** Organization comprised of utility representatives from the Western Section of the United States, which works to promote the standardization of electric service requirements and the design and engineering of metering and service equipment. SRP is a participating member.
23. **Fault Current:** The available short circuit current typically calculated at the Customer's service entrance section (see AIC and Isc).
22. **Factory Built Building:** see Manufactured Building.
23. **Gas:** Any volatile flammable substance capable of being ignited by an electrical spark.
24. **General Public Area:** An area where the general public has free access.
25. **Ground:** A conducting connection between an electrical circuit or equipment and earth, or some conducting body which serves in place of the earth.
26. **Ground Rod:** A ground electrode (rod) driven into earth to provide a base reference for voltage and a path to ground for fault current.
27. **Handles, Lifting:** Handles attached to meter and service equipment panels to aid in the panel removal replacement and open/close operation. They are to be non-folding grasp type, designed to provide full, secure attachment and having the ability to withstand stress of a 75 pound load.
28. **Hand Tools:** Tools used to excavate in a safe and prudent manner. Excavation within a zone identified as containing underground facilities should be performed with reasonable care using hand tools (i.e., hand shovels, vacuum excavation methods, soft digging, pot holing or other non-invasive methods). Hand digging and non-invasive methods are not required for pavement removal.
29. **Hipot:** A dielectric withstanding voltage test, a hipot test stresses the insulation of an electrical assembly by applying a voltage much higher than is usually experienced in normal operation. The purpose of a hipot test is to assure safety and reliability.

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## GLOSSARY

*The following terms, when used herein, shall have the meaning specified.*

30. **Instrument Transformer:** A device that is intended to reproduce in its secondary circuit, in a definite and known proportion suitable for utilization in measurement, control, or protective devices, the current (or voltage) of its primary circuit, with its phase relations substantially preserved. Types include: Potential (voltage), Transformers (PT), and Current Transformers (CT).
31. **Isc:** Available utility fault current for arc flash study.
32. **Junction Box (J-Box):** An above ground surface or sub-surface box which houses cable connections. It may be a Customer's point of delivery.
33. **kCMIL (kCM):** The size of any wire larger than 4/0 is expressed directly in circular mil area. Example: 250,000 Circular Mills = 250 MCM
34. **Line:** A system of poles, ducts, wires or fixtures used for the transmission and distribution of electricity.
35. **Load:** The ratings of the power consuming apparatus which may be connected to SRP's installation or system under consideration.
36. **Main Line Trench:** Any trench located in road right-of-way (by permit), public utility easement or private easement that contains electrical facilities.
37. **Manufactured Building:** Any building that is of closed construction and is made or assembled in manufacturing facilities on or off the building site for installation, or for assembly and installation on the building site, other than manufactured homes, mobile homes, park trailers, or recreational vehicles.
38. **Manufactured Home:** A structure that is transportable in one or more sections and is 2.5 m (8 body ft.) or more in width or 12 m (40 body ft.) or more in length in the traveling mode, or when erected on site is 30m<sup>2</sup> (320 ft<sup>2</sup>) or more; which is built on a chassis and designed to be used as a dwelling, with or without a permanent foundation, when connected to the required utilities, including the plumbing, heating, air conditioning, and electrical systems contained therein.
39. **MCM (Thousand Circular Mills, ALSO KCMIL):** See *kCMIL*.
40. **Meter Pedestal:** Self-supported underground service entrance section.
41. **Mobile Home:** For the purposes of the standards and code, see Manufactured Home.
42. **Modification:** Change in ampacity, change in character of service, added load, relocation or conversion of an existing service entrance section. Distribution Design and the authority having jurisdiction must approve all modifications. All modifications must comply with the current Electric Service Specifications and any other applicable standards.
43. **Municipality:** A state, local, or federal government entity, excluding Native American communities.
44. **National Electrical Code (NEC):** Published by the National Fire Protection Association (NFPA) as NFPA-70, addresses proper electrical systems and equipment installation to protect people and property from hazards arising from the use of electricity in buildings and

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## GLOSSARY

*The following terms, when used herein, shall have the meaning specified.*

- structures. SRP considers the NEC to be the minimum acceptable standard. City, county, or authority having jurisdiction requirements that are more stringent shall prevail.
45. **National Electrical Safety Code (NESC):** The purpose of the NESC is the practical safeguarding of persons during the installation, operation, or maintenance of electric supply and communication lines and associated equipment. It is a nationally accepted code governing utility wiring.
  46. **Non-Critical Load:** A load that, if interrupted, will not cause personal injury or property damage, as defined by SRP Design.
  47. **Parallel Generation:** Electrical generation equipment that has been approved by SRP to operate interconnected with SRP's electrical system.
  48. **Pedestal, Box:** See *Junction Box*.
  49. **Phase Rotation:** A-B-C counterclockwise. For a group of Customers measured at the transformer secondary or for a single Customer measured at the Customer's service entrance.
  50. **Point Of Attachment:** The point at which restraining or anchoring contact is made between SRP's facilities and those of the Customer. This is strictly a mechanical consideration and does not necessarily imply any separation of responsibilities.
  51. **Point Of Delivery (POD):** The point of interconnection between SRP's electrical facilities and those of the Customer. It is the exact point at which the separation of responsibility occurs for the construction, ownership, operation and maintenance of all facilities except metering equipment. SRP will determine the POD in all cases.
  52. **Power Leg (Wild Leg):** The "C" (third) phase of a four-wire delta secondary that is marked "blue with an orange tracer".
  53. **Preferred:** Recommended but not required.
  54. **Public Agency:** Any organization that is publicly or taxpayer funded.
  55. **Public Utility Easement (PUE):** An easement for overhead or underground utility facilities provided for the use of the public, including water, storm drainage, sewage, electricity and communication, owned and operated by any person, firm, corporation, municipal department, or board duly authorized by state or municipal regulations. Utility or utilities as used herein refer to such person, firms, corporations, departments, or boards.
  56. **Public Utility Facility Easement (PUFE):** An easement for the installation of facilities, underground or overhead, furnished for the use of the public, including electricity, gas, steam, communication, water, storm drainage, sewage, sidewalks, landscaping, traffic signals, street lights, flood control, etc., owned and operated by any person, firm, corporation, municipal department, or board duly authorized by state or municipal regulations. Utility or utilities as used herein may also refer to such person, firms, corporations, departments, or boards.
  57. **Photovoltaic: PV**
  58. **Readily Accessible:** Capable of being reached directly, without obstruction at any time. See also Metering section, Service Entrance Section, Equipment Rooms.

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## GLOSSARY

*The following terms, when used herein, shall have the meaning specified.*

59. **Right-of-Way (ROW):** The right to build and operate a utility on land belonging to another.
60. **Salt River Project (SRP):** Agricultural Improvement and Power District.
61. **Securely Attached:** Attached to withstand anticipated loads not subject to loosening.
62. **Service Connection:** One service lateral and its associated service entrance.
63. **Service Drop:** *Refer to Service Lateral.*
64. **Service Energization:** The connection of a service to a voltage source.
65. **Service Entrance Section (SES):** The part of the installation from the point of attachment or termination of the service lateral to and including the service equipment on the Customer's premises.
66. **Service Equipment:** The necessary electrical facilities, usually consisting of a circuit breaker or switch and fuses, conductors and accessories, which constitute the main control and cutoff of the electric supply, and which are installed, owned and maintained by the Customer.
67. **Service Lateral:** A system of wires, fixtures and sometimes poles, or the equivalent ducts, conduits and cables used to conduct electricity from an electrical source to the point of delivery.
68. **Service Trench:** The trench on property containing the service to the home or business.
69. **Solar Ready:** A service entrance panel with a dedicated breaker installed by the manufacturer, allowing the attachment of a Customer's 60 Hz AC solar voltaic feed, via the Customer's utility AC disconnect switch and photovoltaic meter, resulting in a supply side tap configuration.
70. **Temporary Service:** Short-term, non-recurring service of a transitory character, as determined solely by SRP, which may include in its evaluation the speculative character or questionable permanency of the Customer's operations.
71. **Totalized Metering and/or Totalizing:** The measurement of the simultaneous demands and energy of a Customer who receives electric service at more than one service entrance section at a single site or campus for billing purposes on the appropriate price plan.
72. **Trapped Key Interlock System:** A safety device applied to two operating devices, which prevents them from being simultaneously in a closed position.
73. **Ufer:** A concrete-encased electrode, generally located in the foundation of a building, used for grounding the building.
74. **Underwriters Laboratory (UL):** An independent laboratory facility for testing all types of electrical equipment.
75. **Weatherhead:** A metal cap on a Customer's service entrance section that protects the connection of SRP's overhead service conductors to the Customer's conductors from adverse weather conditions.
76. **Wild Leg:** *See Power Leg.*

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## SECTION 1: GENERAL INFORMATION

Customers wanting new meter installations or relocations shall contact the SRP business office for an approved service and meter location prior to proceeding with any electrical installation. By adhering to the following procedure, the Customer will eliminate inconvenience, delays and added fees associated with an incorrect meter location.

### I. Required Information

Each Customer desiring new service and/or a change in existing service must make application with SRP. The Customer must provide the following information:

#### A. General

1. Customer's name (person responsible for paying the bill) and contact information, such as:
  - a) Email address
  - b) Mailing address
  - c) Phone number/fax
2. Copy of the recorded vesting deed (ownership) to the subject property.
3. Service address – street address or route and box.
4. Mailing address, if bills are not to be sent to service address.
5. Site plans and building plans:
  - a) Service entrance (amp rating)
  - b) Load breakdown
  - c) Desired voltage and phase

#### B. Specific Types of Job Requirements:

1. Commercial
2. Residential
3. Temporary

### II. Schedule of Events

- A. Customer provides sufficient notice of intent to build.
- B. Customer provides required information.
- C. SRP preliminary design begins when the Customer provides one full set of adequate drawings. Required information includes:
  1. Architectural

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## SECTION 1: GENERAL INFORMATION

2. Electrical
    - a) Load calculations
    - b) Panel schedule
    - c) Proposed meter panel location (subject to SRP approval)
  3. Civil plans (identification of flood plains)
  4. Landscaping and sprinkler plans – including retention basins
  5. Mechanical
  6. Fire protection
- D. SRP Design Representative verifies the property is located in SRP service territory and will be served by SRP.
  - E. SRP Design Representative examines SRP maps and field checks job site to determine how to serve the property.
  - F. If there are conflicts with SRP Water Users Association facilities, SRP Design Representative directs Customer to SRP Water Users Association for resolution.
  - G. If a Customer has transmission easements or facilities located within their project area, refer the Customer to the Transmission Line Design department.
  - H. Prepare preliminary design and cost estimates (if applicable).
  - I. Present Customer with preliminary design and contract with cost (if applicable).
  - J. Receive signed contract with payment(s) from Customer (if required).
  - K. Design facilities.
  - L. SRP specifies trench and equipment locations (if applicable).
  - M. SRP reviews SES drawings for approval.
  - N. Customer and SRP, each individually, secure necessary permits, easements, ROW, and electrical SES shop drawings (all panels greater than 225 amps that are not pre-approved) with official street address. Electronic copies (PDF format preferred) need to be sent to shopdraw@srpnet.com.
  - O. Customer provides property corners and grade stakes (blue top).
  - P. Customer provides the trench and installs conduit per SRP design (if applicable).
  - Q. SRP inspects trench and conduit installation and approves it per SRP design (if applicable).
  - R. SRP releases job to construction.
  - S. SRP schedules crews for construction of its facilities.
  - T. SRP inspects meter panel for compliance.
  - U. Customer obtains electrical clearance from AHJ.

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## SECTION 1: GENERAL INFORMATION

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- V. Once an account has been established with SRP and clearance has been received from AHJ, the service lateral will be energized and installation of the meter scheduled. SRP must be contacted to provide a meter. The SES must stay in compliance with ESS requirements.

### III. Temporary Service

Go to [srpnet.com/service/business/temp-service.aspx](http://srpnet.com/service/business/temp-service.aspx) or call 602-236-0777.

### IV. Panel Modifications and/or Repair

Contact both SRP and the AHJ prior to making any panel modifications and/or repair to an existing service entrance section. SRP will reconnect power when both SRP and the AHJ approve all service entrance section modifications.

### V. Codes

These specifications are a supplement to the NEC but they are not a substitute for that code or for codes of the AHJ. SRP endorses the jurisdictional authority's right to inspect and insure that the Customer's wiring installations be made in accordance with applicable codes.

### VI. Inspections, Approvals and Permits

Refer to the map on page 1-1 and contact information on page 3 for the appropriate SRP business office.

Maricopa County and most cities/towns in SRP's service area have ordinances restricting SRP from energizing the load side of the electrical service to the Customer until the Customer has obtained the necessary permits and until the actual electrical installation has been approved by the AHJ. Therefore, the Customer should determine the requirements of the Building Safety/Building Inspection department of the county or city having jurisdiction before beginning any job subject to inspection by that department. If no jurisdictional authority exists, SRP must receive a certificate in-lieu of electrical clearance, including the license number of the qualified electrical contractor, stating that the facility meets the NEC requirements prior to receiving SRP's electrical service.

Reference copies of the Certificate In-Lieu of Electrical Clearance and the Certificate In-Lieu of Electrical Clearance for Solar Projects are provided on the following pages. Contact SRP Design via the appropriate SRP business office to obtain a copy of these forms.

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**SECTION 1: GENERAL INFORMATION**



**Certificate In-Lieu of Electrical Clearance**

SRP Bill Account Number: \_\_\_\_\_ And/or Address: \_\_\_\_\_

Job Name: \_\_\_\_\_ Job Number: \_\_\_\_\_

It is a customer's responsibility to ensure that all facilities on the customer's side of the point of delivery for electric service are built and maintained in a safe operating condition. This responsibility includes ensuring that the customer's electrical facilities comply with all relevant construction codes and safety standards. Customers should coordinate this responsibility with their architectural and engineering consultants, construction contractors, or subcontractors, as appropriate, before requesting SRP to energize their electrical systems. A customer's failure to comply with this notice may result in injury or death to persons or damage to property.

**Customer's Certification of Readiness**

The undersigned customer ("Customer") hereby certifies to SRP and agrees that:

1. This Certificate In-Lieu of Electrical Clearance ("Certificate") is subject to SRP's Rules and Regulations for providing electric service (the "Rules and Regulations"). If this Certificate conflicts with the Rules and Regulations, the provisions of the Rules and Regulations will prevail.
2. Customer has read the foregoing "Important Notice" and fully understands Customer's obligations.
3. Customer has conferred with the party(ies) responsible for the design and construction of Customer's facilities, and verified that the electrical systems on Customer's side of the point of delivery are designed, constructed, installed and operational in compliance with all relevant construction and safety codes and standards (including, but not limited to, NFPA 70 of the National Electric Code).
4. Customer assumes full responsibility for any and all damage to property (including, but not limited to, property owned or leased by Customer, SRP and any third party) and death or injury to persons (including, but not limited to, Customer's employees, agents and contractors, SRP's employees, agents and contractors; and any third parties) as a result of conditions on Customer's side of the point of delivery at the service address noted above.
5. Customer hereby releases SRP from liability for any and all damages or injuries that result from the electric service provided by SRP as provided in the Rules and Regulations.
6. In reliance on the representations and agreements in this Certificate, SRP will, subject to the Rules and Regulations, energize electric service to Customer's equipment or facilities after Customer executes this Certificate.
7. The individual signing below is legally authorized to sign this Certificate on behalf of Customer.

Customer's Legal Business Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_  
 \_\_\_\_\_ Date: \_\_\_\_\_

 Electric Service Specifications <b>SRP</b> PROPRIETARY MATERIAL	REV: Incorporated new CILC <b>GENERAL INFORMATION                  REQUEST FOR SERVICE                  CERTIFICATE-IN-LIEU OF ELECTRICAL                  CLEARANCE</b>	ISSUE DATE: 11/09/12 REV. DATE: 10/15/20 APPROVAL: V. Bevins
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**SECTION 1: GENERAL INFORMATION**



**Certificate of Qualified Electrical Contractor**

The undersigned certifies to SRP and agrees that:

1. It has inspected the electrical equipment and facilities of Customer at the Service Address described above and that the equipment and facilities are designed, constructed, installed and operational in compliance with all relevant construction and safety codes and standards.
2. It is qualified to make the representation set forth above.

Please email completed Certificate to the SRP City Clearance Desk at [CCDESK@SRPNET.COM](mailto:CCDESK@SRPNET.COM).

Contractor/Inspector's  
Legal Business  
Signature: \_\_\_\_\_

Company Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

License #: \_\_\_\_\_

Date: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

FOR REFERENCE ONLY

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**SECTION 1: GENERAL INFORMATION**



**Certificate In-Lieu of Electrical Clearance for Distributed Energy Resource (DER)  
Interconnection Projects**

Customer Name: \_\_\_\_\_

Service Address: \_\_\_\_\_ Job Number: \_\_\_\_\_  
and/or \_\_\_\_\_

Job Name: \_\_\_\_\_ SRP Bill Account Number: \_\_\_\_\_

**IMPORTANT NOTICE**

It is a Customer's responsibility to ensure that all electrical facilities on the Customer's side of the point of delivery for electric service are built and maintained in a safe operating condition. This responsibility includes ensuring that the Customer's electrical facilities comply with all relevant construction codes and safety standards. Customers should coordinate this responsibility with their architectural and engineering consultants, construction contractors, or subcontractors, as appropriate, before requesting SRP to energize their electrical systems (or, in the case of a distributed energy resource system, to allow interconnection with SRP's electrical distribution system). This Certificate In-Lieu of Electrical Clearance for Distributed Energy Resource (DER) Interconnection Projects (Certificate) must be signed when the governmental authority having jurisdiction has elected to not require a permit or inspection for installation or significant modification to an electrical system on a Customer's property. A CUSTOMER'S FAILURE TO COMPLY WITH RELEVANT CONSTRUCTION CODES AND SAFETY STANDARDS MAY RESULT IN INJURY OR DEATH TO PERSONS, OR DAMAGE TO PROPERTY.

**Customer's Certification of Readiness**

The undersigned customer (Customer) hereby certifies to SRP and agrees that:

1. Customer has read the "Important Notice" above and fully understands Customer's obligations.
2. Customer is having a distributed energy resource facility and related equipment (DER Facility) installed at the service address above.
3. Customer understands the governmental authority having jurisdiction, \_\_\_\_\_, at the present time does not require a permit or inspection for the installation of distributed energy resource systems (including the DER Facility). SRP will not review or inspect Customer's DER Facility to verify compliance with the National Electric Code or other relevant construction codes and safety standards. It is Customer's responsibility to ensure all relevant construction codes and safety standards are met.
4. Customer represents to SRP that it has conferred with the party responsible for the design and construction of Customer's DER Facility and verified that the DER Facility has been designed, constructed, installed, and inspected (and will operate) in compliance with all relevant construction and safety codes and standards (including, but not limited to, National Fire Protection Association (NFPA 70) and Section 690 of the National Electric Code).
5. Customer understands that SRP has only inspected the DER Facility to ensure that it will not harm or interfere with SRP's electrical distribution system. SRP has not inspected or approved any other electrical facilities or conditions at Customer's service address.
6. Customer must have the party responsible for the design and construction of the Customer's DER Facility sign the Certificate of Qualified Electrical Contractor below.
7. Customer assumes full responsibility for any and all damage to property (including, but not limited to, property owned or leased by Customer, SRP, or any third party) and death or injury to person(s) (including, but not limited to, Customer's employees, agents, and contractors; SRP's employees, agents, and contractors; or any third parties) as a result of the installation and operation of the DER Facility at the service address noted above.

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Electric Service Specifications



PROPRIETARY MATERIAL

**GENERAL INFORMATION  
REQUEST FOR SERVICE  
CERTIFICATE-IN-LIEU OF ELECTRICAL  
CLEARANCE**

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ISSUE DATE: 11/09/12  
REV. DATE: 10/15/20  
APPROVAL: V. Bevins

ESS Certificates.doc

**SECTION 1: GENERAL INFORMATION**



- 8. Customer hereby knowingly and fully releases SRP from any and all claims and liability for any and all damages or injuries that result from conditions on Customer's side of the point of delivery at the service address noted above.
- 9. In reliance on the representations and agreements in this Certificate, SRP will, subject to SRP's Rules and Regulations (Rules and Regulations), allow interconnection with SRP's electrical distribution system after Customer executes this Certificate, even though the governmental authority having jurisdiction has not reviewed or inspected Customer's DER Facility to ensure compliance with the National Electric Code and other relevant codes and safety standards required by the governmental authority having jurisdiction.
- 10. SRP's delivery of power and Customer's interconnection with SRP's electrical distribution system are governed by the Rules and Regulations for providing electric service. If this Certificate conflicts with the Rules and Regulations, the provisions of the Rules and Regulations will prevail.
- 11. For business/commercial Customers, the individual signing below is legally authorized to sign this Certificate on behalf of Customer.

**For business/commercial Customers**

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

\_\_\_\_\_ Date: \_\_\_\_\_

**For residential Customers**

Customer Name: \_\_\_\_\_

Customer Spouse Name: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

\_\_\_\_\_

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Customer Spouse Signature: \_\_\_\_\_ Date: \_\_\_\_\_

REFERENCE ONLY

 PROPRIETARY MATERIAL	REV: Incorporated new CILC <b>GENERAL INFORMATION                  REQUEST FOR SERVICE                  CERTIFICATE-IN-LIEU OF ELECTRICAL                  CLEARANCE</b>	ISSUE DATE: 11/09/12 REV. DATE: 10/15/20 APPROVAL: V. Bevins
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**SECTION 1: GENERAL INFORMATION**



**Certificate of Qualified Electrical Contractor**

The undersigned represents and certifies to SRP and agrees that:

1. It has designed, constructed, installed, and inspected the electrical facilities at the service address described above.
2. The electrical facilities have been designed, constructed, installed, and inspected (and will operate) in compliance with all relevant construction and safety codes and standards.
3. It is qualified to make the representation set forth above.

Please email completed Certificate to the SRP City Clearance Desk at [CCDESK@SRPNET.COM](mailto:CCDESK@SRPNET.COM).

Contractor's Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_ License Number: \_\_\_\_\_

Company Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

\_\_\_\_\_ Date: \_\_\_\_\_

FOR REFERENCE ONLY

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## SECTION 1: GENERAL INFORMATION

### VII. SES Inspection Jurisdiction Principals

Inspection Task	SRP	Local Municipal
General	Inspects for general electrical hazards (i.e., multiple main breakers).	Inspects for general electrical hazards.
Cabinet	Distribution service wiring is housed within a portion of the cabinet designated for electric service from the utility. SRP inspects cabinet to ensure that these conductors can be accessed for maintenance operations purposes and that the sealable section is not penetrated. ESS Sections 2, 3 & 9.	Inspects access to cabinet for Customer wiring within the portion of the cabinet designated for Customer wiring.
Auxiliary Distribution Panels	Does not inspect. However, these panels must not be in conflict with utility easement, operation of the meter or the SRP cable pull section of the cabinet.	Inspects panels to meet local building code requirements.
Landing Lugs and Line-side Bus to Meter (POD)	The Nameplate Rating (amps) defines the design of the distribution service facilities (utility wire, transformers) providing power. This is referred to as the POD. SRP inspects line-side bus and landing lugs for compatibility with the distribution system design. ESS Sections 2, 3 & 9.	Does not inspect source side bus utility service wire landing lugs.
Load-side Bus from Meter to Breaker(s)	Does not inspect	Does inspect
Main Breaker(s) Bus	Does not inspect	Does inspect
Main Breaker(s)	Reviews for compatibility with the source side bus (including interrupting rating). ESS Section 1.	Inspects for compatibility with the load side bus and breaker(s) bus (including interrupting ratings).
Grounding/Bonding	Inspects requirements, which consists of the main bonding jumper, the ground electrode and the hub bonding. ESS Section 8.	Inspects to meet local building code requirements.

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## SECTION 1: GENERAL INFORMATION

Inspect Task	SRP	Local Municipality
Physical Location of SES	Determines and inspects the location of the SES for compatibility with utility ROW service access and clearances. ESS Sections 2, 3, 5 & 9.	May inspect
Meter Socket	Verifies compliance with meter standards and metering height requirements. ESS Section 9.	Does not inspect
Foundation / Mounting	Verifies compliance of the foundation/mounting of the SES. ESS Sections 2 & 3.	Does not inspect
Address / Section Labeling	Verifies the address and meter location including meter identification requirements. ESS Section 9.	May inspect for the address and SES labeling referencing permit.
Customer Electric Supply Wiring to Customer load	Does not inspect	Inspects to meet local building code requirements.
Factory Built Buildings Only: Conductor from SES to Building	Does not inspect	Arizona Department of Housing may inspect.
Shop Drawings (400 Amp Service or larger)	Verifies drawings are in compliance with EUSERC. Performs field inspection of SES to evaluate compliance. ESS Sections 2, 3 & 9.	Does not inspect
Meter / Utility Distribution Equipment Vaults (rooms)	Reviews for compliance with requirements. ESS Section 9.	Reviews requirements.

### VIII. Service Entrance Location

SRP reserves the right to determine all service entrance locations. Only authorized SRP personnel of the Distribution Design Department will determine this location.

### IX. Tampering

- A. The breaking of seals and tampering with meters or unmetered wiring by unauthorized persons is prohibited and subject to penalty charges.
- B. Section 13-1602 of the Arizona Revised Statutes prohibits tampering with the property of a utility. Such tampering is a felony if it causes impairment of the function of the utility.
- C. In addition to the above, penalties for unauthorized use of unmetered energy may include special service charges for unmetered service, an estimate of consumption based on proper data of available records, and the full cost or expense incurred by SRP to correct the infraction.

 <p>Electric Service Specifications</p> <p>PROPRIETARY MATERIAL</p>	<p>REV: Added Factory Built Buildings to Inspect Tasks</p>	<p>ISSUE DATE: 04/15/86</p>
	<p>GENERAL INFORMATION</p> <p>REQUEST FOR SERVICE</p>	<p>REV. DATE: 09/06/17</p> <p>APPROVAL: N. Sabbah</p>
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**SECTION 1: GENERAL INFORMATION**

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**X. Responsibility**

The Customer has the responsibility to maintain their wiring and equipment in safe operating condition. SRP cannot accept any responsibility for the Customer's wiring and equipment.

NOTE: SRP gives no warranty, expressed or implied, as to the adequacy, safety or other characteristic of any equipment, wiring or device and assumes no responsibility with respect thereto.

**XI. Cooperation**

It is the sincere desire of SRP to provide and maintain dependable, safe, and satisfactory electric service in a courteous and efficient manner. Cooperation of Customers and their agents is appreciated. It is necessary to provide SRP with information leading to new or increased electric service early in the development of plans to aid the proper scheduling of service. Cooperation of all interested parties and strict adherence to the specifications in the manual will expedite satisfactory electric service.

**XII. Enforcement of Specifications**

SRP will allow a 45-day grace period prior to enforcing new or revised specifications placed in this ESS book.

EXCEPTION: Hazardous or safety-related requirements resulting in new or revised specifications shall be enforced immediately.

**XIII. Appeals**

SRP has an appeal process. Contact Customer Services for more information.

**XIV. Access to Service Entrance Section/Metering on Customer's Premises**

- A. The SES/metering, and any other SRP equipment installed on the Customer's premises, shall be readily accessible by SRP's authorized employees or agents at all times. The Customer shall be required to relocate the SES if SRP access is later restricted by any condition (see Section 5 – Clearances and Section 9 – Metering & SES).
- B. Electrically operated gates, which do not permit immediate 24-hour access to electric facilities for SRP personnel, could pose a safety hazard. Every existing or proposed electrically operated gate in SRP territory is required to have the approved SRP Restricted Access Switch assembly installed. Customers are responsible for installing the SRP approved switch, which will be wired to the gate controller, on electrically operated gates. The required lock and key switch will be available through SRP after payment for the lock and switch has been received. The switch will be installed by the Customer's gate service company and maintained by the Customer, according to SRP specifications. Customers are also required to provide the means of opening gates from the inside without the use of vehicles to activate the controller. This may require the installation of an additional SRP Restricted Access Switch assembly inside the gate if there is not an unsecured switch available for SRP use.

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## SECTION 1: GENERAL INFORMATION

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### XV. Tree Trimming

SRP does not prune trees around power lines that run from power poles to homes (on private property), businesses or street lights. In these cases, pruning is the responsibility of the property owner. **Never attempt to prune trees near power lines yourself!** Arizona law places restrictions on tree pruning within 10 feet of a power line. A qualified contractor is required. Private contractors must be qualified per OSHA line clearance standards.

NOTE: All vegetation near conductors, pole to pole (in PUE and/or ROW), must be cleared by SRP. Charges may apply.

### XVI. Identification of Employees

SRP employees, authorized to visit the Customer's premises, are furnished with identification, which they will show upon request. This is done to protect the Customer from unauthorized persons representing themselves as SRP employees.

### XVII. Rate Schedule

Upon request, SRP Rate Schedules and/or Rules and Regulations are available for examination at any SRP business office or online at [srpnet.com](http://srpnet.com).

### XVIII. Attachments to SRP Facilities

No attachments are allowed to SRP facilities unless provided by joint use contract.

### XIX. SRP Excavations

No joint use with SRP underground facilities unless by joint use contract.

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## SECTION 1: GENERAL INFORMATION

SRP reserves the right to approve all service installations and only authorized personnel of the Distribution Design department will make the determination.

### I. Types of Service

- A. The following types of service are available based on the classification of use, location and the amount of load to be served. It is necessary for the Customer to contact the regional Distribution Design department to verify availability of the type of service requested prior to purchasing equipment. Typically, SRP will supply one voltage classification to a building. Single-phase service in a three-phase service area will depend on availability of capacity as determined by SRP Design.
- B. The operation of large flashing signs, welders, arc furnaces, induction heaters, radio and television transmitters, x-ray equipment, reciprocating compressors and similar apparatus having intermittent flow of large currents sometimes interferes with other users of the electric service. The Customer shall consult SRP so that the character of electric service that will be supplied, the corrective equipment needed and other special precautions that must be taken, will be mutually known factors before planning to use such apparatus. The Customer shall be responsible for corrective equipment that may be necessary.
- C. The table below outlines the load limitations for each type of service. These limitations are for total single- and three-phase loads.

#### Service Entrance Section (SES) Sizing Limitations

Phase/ Wire	Classification		Overhead Service		Underground Service	
	Voltage (V)	Type	Min. SES Size (A)	Max. SES Size (A)	Min. SES Size (A)	Max. SES Size (A)
1 Phase 2 Wire	120 Note 1	General Only	N/A	N/A	N/A	30
1 Phase 3 Wire	120/240 Note 2	General or Residential	100	800	100	600 Note 3
	120/208 Note 4	General	N/A	N/A	100	100
	240/480	ADOT Lighting Only	N/A	N/A	200	200
3 Phase 4 Wire	120/240 Note 4	General or Residential	100	1200	100	600
	120/208	General or Residential 1-Phase Multiple Meter or Mixed Use Commercial w/ Residential 1-Phase Multiple Meter	200	1,600	100	4,000 Notes 5 & 6
	277/480	General Only	100	600	100	3,600 Notes 5 & 6
	2,400/4,160	General Only	N/A	N/A	100	400
	7,200/12,470	General Only	N/A	156 Notes 8 & 9	N/A	156 Note 7

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## SECTION 1: GENERAL INFORMATION

### NOTES

1. Installations shall not exceed two branch circuits or two motors rated ½ HP or less, except in the case of special equipment.
2. Installations shall have more than two circuits serving electrical ranges, air conditioners, water heaters, space heating equipment, and a maximum 7 ½ HP motor.
3. 800 A multi-metered SES serving residential loads are permitted with load verification.
4. Contact Distribution Design for availability.
5. **Maximum 800A when served from a pole-mounted transformer bank, provided 3-4" service riser conduit stub-ups and a single riser mold can be attached to pole.**
6. Maximum 800 A if wall-mounted. EXCEPTION: 1200 A 120/208 V multi-metered wall mounted SES serving residential load only.
7. 156 A maximum demand on a non-dedicated circuit. Dedicated circuit requires system review. Contact Distribution Design.
8. Overhead metering equipment supplied by SRP.

### II. Service Laterals

Only one service will be supplied to any building.

EXCEPTION: Customers with a load exceeding the SES size limitations require an additional SES which must receive approval in writing by the local municipal AHJ. The local municipal AHJ approves the installation in writing to SRP, including permit number and title.

### III. Additional Service/Meter

Regarding existing services, added load will be evaluated on a per-Customer basis. Customers with existing wired buildings or suites adding load in excess of the existing service entrance load capacity may request an additional service and meter as follows:

- A. When a Customer leases an existing building with the service entrance equipment already installed, as many meters as the service entrance can hold (in accordance with local authority) can be requested. The existing service equipment must reach code design capacity before additional service laterals will be provided.
- B. Totalized metering is the measurement of the simultaneous demands and energy of a Customer who receives electric service at more than one SES at a single site or campus for billing purposes on the appropriate price plan.
  1. General Requirements:
 

An electrical service Customer whose load requires multiple points of delivery and SES at a single location may be metered and billed as if from a single meter through totalized metering, provided all of the following criteria are satisfied:

    - a) Customer facilities must be located on adjacent contiguous site as per campus.
    - b) All accounts to be totalized must be on the same E-60 series price plan.

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- c) Totalized metering may be accomplished by providing electronically totalized demand and energy reads.
- d) Only three-phase SES are to be combined for totalization.
- e) Permissible service voltages are 277/480 or 120/208 three phases, four-wire.
- f) The Customer shall provide, at no cost to SRP, vault or transformer space located as designated by SRP and compliant to all clearance and access requirements.
- g) Customers who operate an electric generation unit on the premise, totalized metering will be permitted when the Customer complies with all SRP requirements for interconnection, pays all costs for any additional special metering required to accommodate such service from totalized service sections, and takes service on an applicable price plan for interconnected Customer-owned generation.
- h) Written approval by SRP authorized representative is required before totalized metering may be implemented.
- i) Customer's metered coincident load exceeds SRP's ability to serve through one transformer (two services may be totalized into one when the coincident load exceeds 2550kVA).
- j) The Customer's SES are within 150 feet of each other. Services connected to a dedicated feeder are generally totalized. Dedicated feeders are evaluated on an individual basis.

Multiple services installed at the request of a Customer for purposes of reliability, redundancy, etc., and which do not otherwise qualify based on coincident load, will not be totalized.

- C. Removal of totalized metering configuration (some or all) shall be permitted provided all of the following criteria are satisfied:
  - 1. The Customer has submitted a written request to SRP stating the reason for the removal.
  - 2. The Customer may not be totalized again for one year from the removal date.
  - 3. Requests to have the services be totalized again requires the Customer to meet all terms described herein or as modified by future revisions to this policy.
  - 4. The Customer is required to make a non-refundable contribution for the costs associated with the removal of the meter totalizing connection and equipment.
  - 5. The Customer is required to make a nonrefundable contribution for typical service re-establishment fees.
- D. Multiple services/meters shall be identified. Identification means shall be in such a manner as meter 1 of 3, 2 of 3, 3 of 3, etc. See Section 9 – Metering for specifics of the identification tag.

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## SECTION 1: GENERAL INFORMATION

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NOTE: For safety reasons, if a Customer has two or more services, none of these services shall be interconnected; this prevents back feed.

### IV. Starting Currents, Three-Phase Motors

- A. In general, across the line starting of three-phase motors is allowed for motors up to 25 HP on 208 or 240 volt systems, and 75 HP on 480 volt systems, provided the motor's locked rotor amps do not exceed code "F", NEC Table 430-251 A and B.
- B. Motors larger than those in IV.A. referenced above require SRP Engineering analysis to determine the starting method. The Customer shall supply a starter if one is required. Data required for analysis includes:
  - 1. Location
  - 2. Motor size
  - 3. Code letter
  - 4. Voltage
  - 5. Number of starts per time
- C. Starters must conform to latest NEMA standards and the installation must be in accordance with the NEC. Magnetic contactors in full voltage motor starters must have a coil capable of sealing in the contactor at 75% rated voltage. All motors must have three element overload protection, one element in each conductor to the motor.
- D. Maximum permissible current values referenced above apply to an installation of a single motor. Starters may be omitted on the smaller motors or a group installation when their omission will not result in a starting current in excess of the allowable starting current of the largest motor of the group.
- E. In the case of irrigation installations, SRP requires that all motors greater than 30 HP be served at 480 volts or greater.

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## SECTION 1: GENERAL INFORMATION

Stand-by generators, alternate supply circuit or multiple service must not be interconnected with the SRP electric system because the resulting back feed is a hazard.

### NOTES

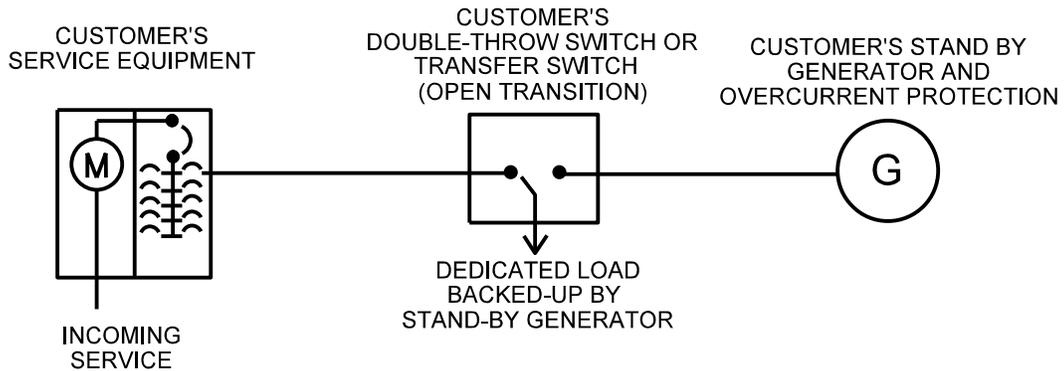
- To avoid interconnecting the two systems, an open transition (break-before-make) transfer switching scheme is required. The following are approved methods.
  - Installation of a UL 98 listed double throw safety switch.
  - Installation of a UL 1008 listed transfer switch specifically designed for that purpose.
  - Installation of a commercial grade trapped key interlock system. Details must be submitted to SRP for review and approval.
- Signage shall be permanently affixed to the exterior of the service entrance equipment indicating the type and location of the on-site power source(s) and the location of the transfer device(s).

EXAMPLE: See Section 11 - Customer Supplied Materials: On-site Power Source(s) and Transfer Devices(s) Location Sign

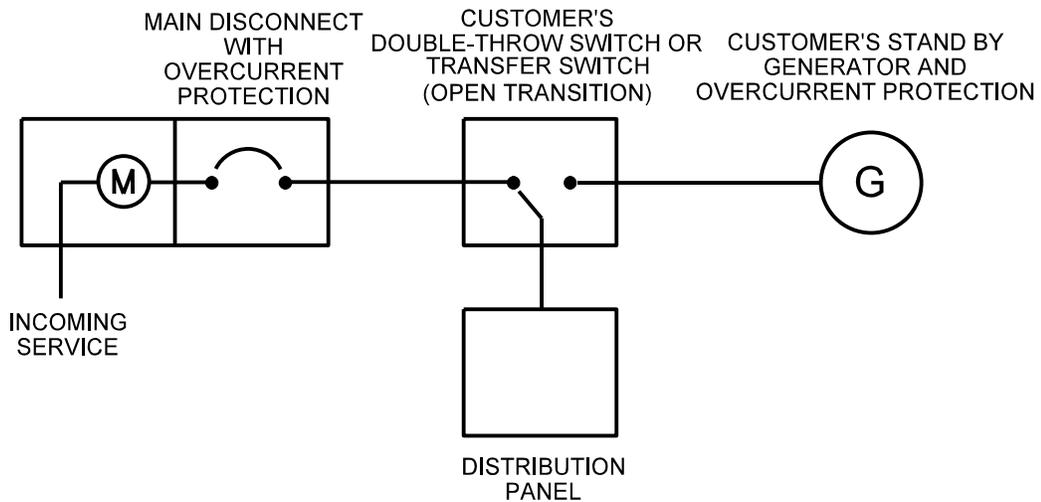
- Customer is responsible to secure and connect all stand-by generation.
- Installations shall be in accordance with the AHJ. In addition, SRP reserves the right to inspect and approve all installations.
- For Customer-Owned generation interconnected with SRP's grid, compliance with SRP's Distributed Generation Interconnection Handbook and a signed interconnection Agreement is required. This handbook is available at srpnet.com
- For all-in-one supply side tap please refer to page 9-16.

### EXAMPLE CONNECTIONS

#### CONNECTION OF STAND-BY GENERATOR SUPPLYING SINGLE OR PARTIAL LOAD



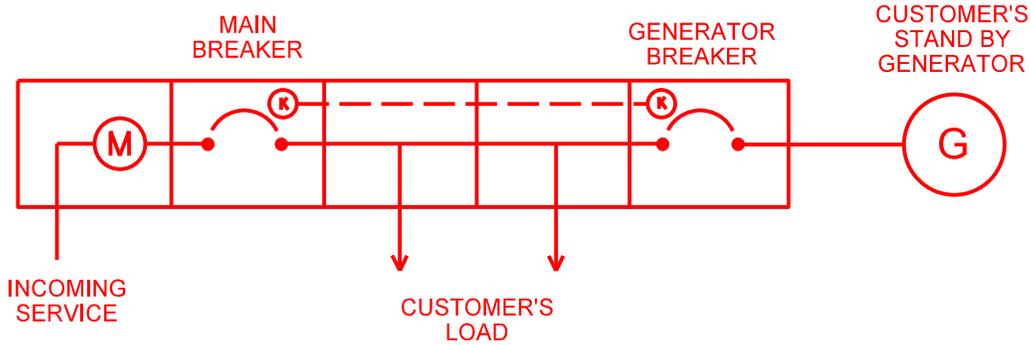
#### CONNECTION OF STAND-BY GENERATOR SUPPLYING CUSTOMER'S ENTIRE LOAD



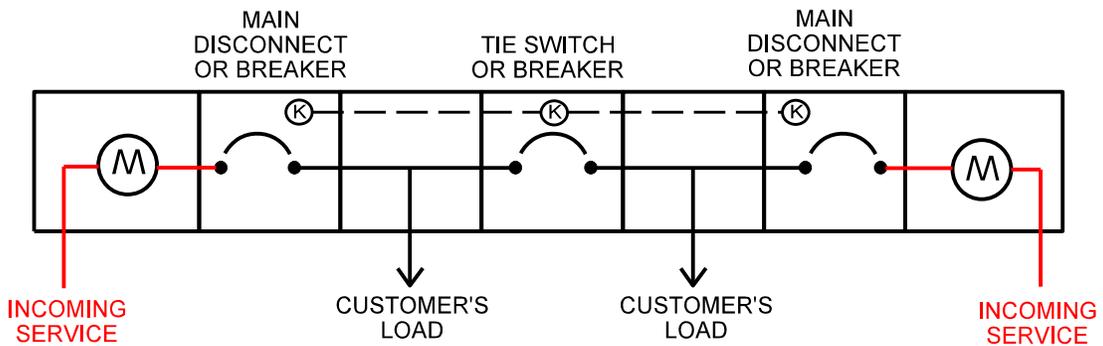
<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p>REV. ADDED NOTE</p>	<p>ISSUE DATE: 04/15/86</p>
	<p>GENERAL INFORMATION STAND-BY GENERATOR OR MULTIPLE SERVICE AND TRANSFER SWITCH REQUIREMENTS</p>	<p>REV. DATE: 07/22/21</p> <p>APPROVAL: K. MacFadyen</p>
<p>1-23</p>	<p>8509E313.DGN</p>	

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**CONNECTION OF STAND-BY GENERATOR THROUGH A TRAPPED KEY INTERLOCK SYSTEM**



**TRAPPED KEY INTERLOCK SYSTEM (MAIN-TIE-MAIN) OF TWO SERVICES**



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	<p>GENERAL INFORMATION STAND-BY GENERATOR OR MULTIPLE SERVICE AND TRANSFER SWITCH REQUIREMENTS</p>	<p>REV. DATE: 5/12/21</p>
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**THIS CONTENT HAS BEEN MOVED TO THE  
DISTRIBUTED GENERATION INTERCONNECTION HANDBOOK, SECTION 2.3**

<b>Electric Service Specifications</b>  <b>PROPRIETARY MATERIAL</b>	<b>REV: Content moved to Interconnection Handbook, Section 2.3</b>	
	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300 KW OR LESS</b>	<b>ISSUE DATE: 05/06/09 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</b>
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	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300 kW OR LESS</b>	ISSUE DATE: 05/08/09 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen
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	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300 kW OR LESS</b>	ISSUE DATE: 05/08/09 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen
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 Electric Service Specifications <b>SRP</b> <sup>®</sup> PROPRIETARY MATERIAL	REV: Content moved to Interconnection Handbook, Section 2.3	ISSUE DATE: 05/08/09
	GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300 kW OR LESS	REV. DATE: 11/12/20 APPROVAL: K. MacFadyen
	1-28	ESS1-26to1-28.doc

**SECTION 1: GENERAL INFORMATION**

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<b>Electric Service Specifications</b>  <b>PROPRIETARY MATERIAL</b>	<b>REV: Content moved to Interconnection Handbook, Section 2.3</b>	
	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300 kW OR LESS WITH STORAGE</b>	<b>ISSUE DATE: 04/30/18 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</b>
	<b>1-29</b>	<b>8509E357.DGN</b>

**SECTION 1: GENERAL INFORMATION**

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<b>Electric Service Specifications</b>  <b>PROPRIETARY MATERIAL</b>	<b>REV: Content moved to Interconnection Handbook, Section 2.3</b>	
	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300kW OR LESS WITH STORAGE</b>	<b>ISSUE DATE: 04/30/18 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</b>
	<b>1-30</b>	<b>8509E358.DGN</b>

**SECTION 1: GENERAL INFORMATION**

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<b>Electric Service Specifications</b>  <i>PROPRIETARY MATERIAL</i>	<b>REV: Content moved to Interconnection Handbook, Section 2.3</b>	
	<b>GENERAL INFORMATION DISTRIBUTED ENERGY RESOURCE INTERCONNECTION RATED 300kW OR LESS WITH STORAGE</b>	<b>ISSUE DATE: 04/30/18 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</b>
	<b>1-31</b>	<b>8509E359.DGN</b>

**SECTION 1: GENERAL INFORMATION**

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	<p>GENERAL INFORMATION CUSTOMER-OWNED INVERTER-BASED INTERCONNECTION WITH TELEMTRY</p>	<p>ISSUE DATE: 01/22/19 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</p>
	<p>1-32</p>	<p>8509E382.DGN</p>

**SECTION 1: GENERAL INFORMATION**

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	<p><b>GENERAL INFORMATION CUSTOMER-OWNED INVERTER-BASED INTERCONNECTION WITH TELEMTRY</b></p>	<p>ISSUE DATE: 01/22/19 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen</p>
	<p>1-33</p>	<p>ESS1-33to1-34.doc</p>

## SECTION 1: GENERAL INFORMATION

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 Electric Service Specifications <b>SRP</b> <sup>®</sup> PROPRIETARY MATERIAL	<b>REV: Content moved to Interconnection Handbook, Section 2.6</b>	
	<b>GENERAL INFORMATION CUSTOMER-OWNED INVERTER-BASED INTERCONNECTION WITH TELEMTRY</b>	ISSUE DATE: 01/22/19 REV. DATE: 11/12/20 APPROVAL: K. MacFadyen
	1-34	ESS1-33to1-34.doc

**SECTION 1: GENERAL INFORMATION**

**TABLE 1 – 1Ø RESIDENTIAL (NON-COMMERCIAL)  
SINGLE OR DOUBLE METER SOCKET SES**

SES (A)	Pad or Pole Mounted 1Ø 120/240V Transformer		
	Number of Meter Sockets	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)
100	1 or 2	10,000	9,554
125			
150			
200	1 or 2	22,000	21,188
225	1		
400 (320 Class)			

**NOTES**

1. For the above SES, SRP will size transformer and design secondary/service conductor length to limit the SRP supplied fault current to 9,554A or 21,188A based upon SES size.
2. Refer to Table 2 for residential SES not listed above.

**TABLE 2 – 120/240V 1Ø AND 3Ø**

<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p>REV: Clarified 400 AMP residential panel as 320 class.</p>	<p>ISSUE DATE: 04/15/86</p> <p>REV. DATE: 08/30/17</p> <p>APPROVAL: N. Sabbah</p>
	<p>GENERAL INFORMATION FAULT CURRENT TABLES</p>	
	<p>1-35</p>	

## SECTION 1: GENERAL INFORMATION

SES (A)	Pad Mounted 1Ø 120/240V Transformer		Pole Mounted 1Ø 120/240V Transformer		Pad Mounted 3Ø 120/240 (Y – Δ) Transformer Bank		Pole Mounted 3Ø 120/240 (Y – Δ) Transformer Bank	
	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)
100	10,000 (Note 1)	7,917	10,000	7,275	10,000	7,386	10,000	7,330
125	22,000 (Note 1)	13,268	10,000	9,294	22,000	13,531	10,000	9,059
150	22,000 (Note 1)	13,469	10,000	9,294	22,000	12,702	10,000	9,159
200	22,000 (Note 1)	15,493	22,000	10,792	22,000	18,703	22,000	11,225
400	35,000 (Note 1)	28,539	35,000	29,031	35,000	28,206	35,000	26,656
600	42,000	39,384	35,000	34,139	42,000	38,056	35,000	32,208
800	42,000	39,925	42,000	39,384	N/A	N/A	65,000	45,843
1,000	N/A	N/A	N/A	N/A	N/A	N/A	65,000	47,335
1,200	N/A	N/A	N/A	N/A	N/A	N/A	65,000	47,335

### NOTES

- See Table 1 for residential (non-commercial) single or double meter socket SES 400A (320 class) or less.
- Fault current values are calculated at the Customer's service equipment based upon the following:
  - Three-phase system short-circuit capacity of 162,000 kVA.
  - Single transformer serving a single SES.
  - Transformer and service conductors sized to serve 100% of the SES.
  - Minimum transformer impedance.
  - 25' of service conductor.

EXCEPTION: Overhead laterals served by copper conductors with three or more conductors per phases are based upon 12' of service conductor.
- SRP designs may be different than Note 1. Consult with SRP Design before ordering or designing the service entrance equipment.
- Email DDE@srpnet.com to request fault current data for arc flash studies.

<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p>REV: Clarified 400 AMP residential panel as 320 class.</p>	<p>ISSUE DATE: 04/15/86</p> <p>REV. DATE: 08/30/17</p> <p>APPROVAL: N. Sabbah</p>
	<p>GENERAL INFORMATION</p> <p>FAULT CURRENT TABLES</p>	
<p>1-36</p>		<p>ESS1-35 to1-38.doc</p>

**SECTION 1: GENERAL INFORMATION**

**TABLE 3 – 120/208V AND 277/480V 3Ø**

SES (A)	Pad Mounted 3Ø 120/208V Transformer		Pole Mounted 3Ø 120/208V Transformer Bank		Pad Mounted 3Ø 277/480V Transformer		Pole Mounted 3Ø 277/480V Transformer Bank	
	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)	Minimum SES Bracing (A)	SRP Supplied Fault Current (A)
100	10,000	9690	10,000	6,708	10,000	8,368	22,000	10,226
125	22,000	10999	10,000	6,708	10,000	8,758	22,000	10,226
150	22,000	11,412	10,000	9,594	10,000	8,868	22,000	10,226
200	22,000	12,260	10,000	9,594	22,000	13,007	22,000	13,903
400	22,000	18,976	35,000	22,260	35,000	26,178	35,000	25,645
600	35,000	29,241	35,000	29,659	35,000	27,452	35,000	25,645
800	42,000	37,979	65,000	42,836	35,000	27,670	N/A	N/A
1000	65,000	58,612	65,000	55,353	35,000	27,878	N/A	N/A
1200	65,000	59,924	65,000	60,343	35,000	19,997	N/A	N/A
1600	65,000	61,498	85,000	83,132	35,000	28,506	N/A	N/A
2000	65,000	62,734	N/A	N/A	42,000	36,271	N/A	N/A
2500	65,000	45,614	N/A	N/A	65,000	43,375	N/A	N/A
3000	65,000	64,959	N/A	N/A	65,000	43,490	N/A	N/A
3600	N/A	N/A	N/A	N/A	65,000	49,990	N/A	N/A
4000	85,000	65,574	N/A	N/A	N/A	N/A	N/A	N/A

**NOTE**

1. See page 1-36 for additional notes.

<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p>GENERAL INFORMATION FAULT CURRENT TABLES</p>	<p>ISSUE DATE: 04/15/86</p> <p>REV. DATE: 02/28/17</p> <p>APPROVAL: N. Sabbah</p>
	<p>1-37</p>	<p>ESS1-35 to1-38.doc</p>

**SECTION 1: GENERAL INFORMATION**

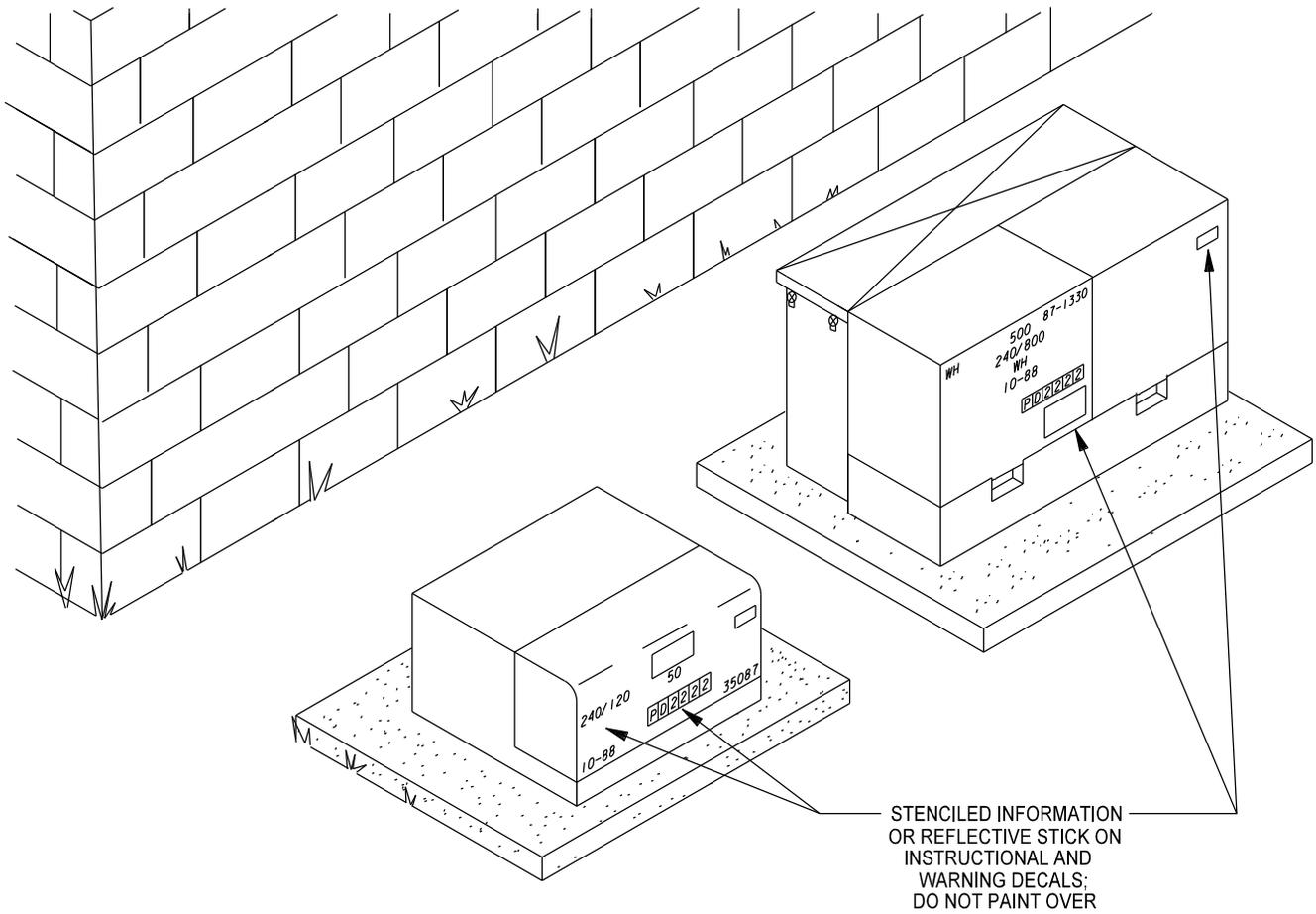
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**TABLE 4 – 2400/4160V 3Ø**

<b>SES (A)</b>	<b>Pad Mounted 3Ø 2400/4160V Transformer</b>	
	<b>Minimum SES Bracing (A)</b>	<b>SRP Supplied Fault Current (A)</b>
100	10,000	1,799
200	10,000	3,329
400	10,000	5,793

**NOTE**

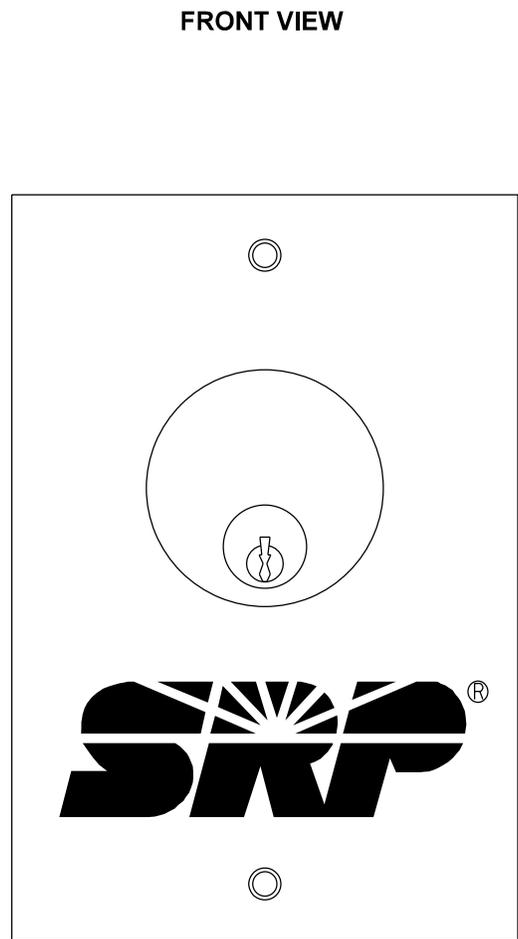
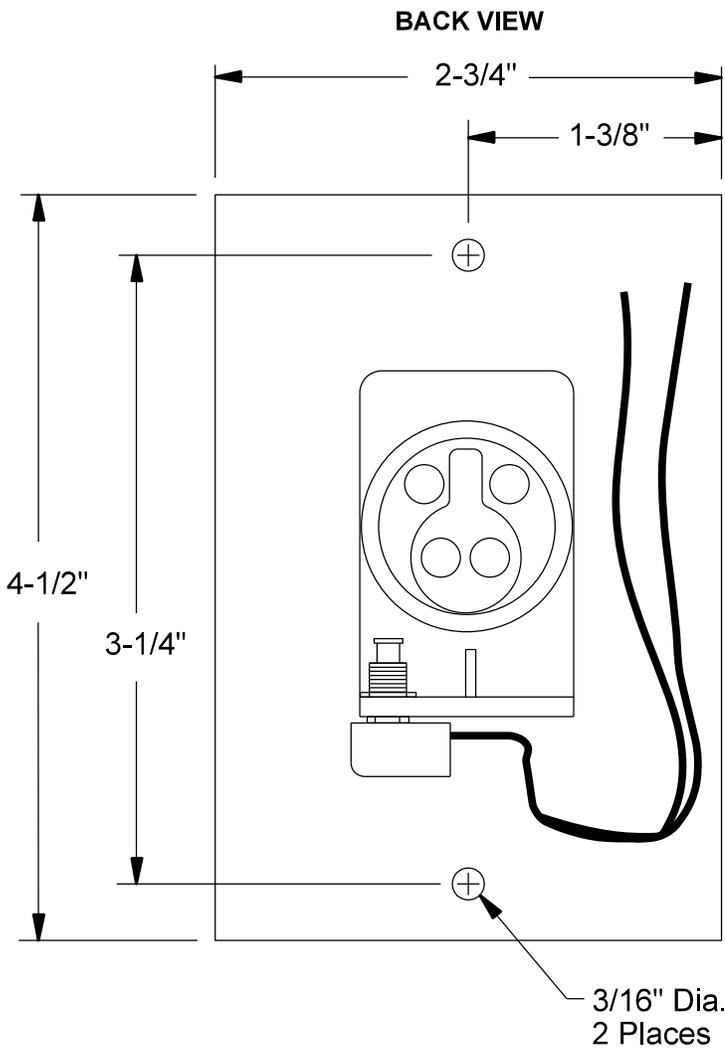
1. See page 1-37 for additional notes.



**NOTES**

1. At the Customer's request and expense, the Customer may paint pad-mounted equipment such as transformers, switching and fusing cubicles and capacitor enclosures. The Customer shall not paint substation fences or other SRP equipment. The Customer must notify SRP prior to painting SRP equipment by contacting Customer Services. Customer must contact HOA or municipality for color schemes and approval.
2. Do not paint over identifying lettering, numbering, warning signs, handles, locks, pads or sight glass windows.
3. The Customer must maintain the paint condition of equipment they have painted. SRP retains the right to charge Customer full cost of restoring its equipment to acceptable condition (repainting to original SRP color) if:
  - A. The Customer fails to comply with these requirements.
  - B. The Customer does not maintain their painting of SRP equipment.
4. Color choices used by the Customer shall be complimentary to the surroundings of the equipment. SRP recommends using a water base paint which will not damage the original painted surface.
5. If, for any reason SRP has to replace a piece of pad-mounted equipment that has been painted by a Customer, the new equipment will be standard SRP color. The Customer may paint the replaced equipment according to the instructions on this page.
6. Preparation of SRP equipment is limited to cleaning the surface using a detergent and water. No sanding, power washing or chemical solvents are to be used on the painted surface of the equipment. Concrete pad, adjacent equipment, walls or other objects shall be masked or covered prior to painting.
7. Films, laminates or materials other than described in Note 4 shall not be used.

<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p>GENERAL INFORMATION CUSTOMER MODIFICATION TO THE APPEARANCE OF SRP PAD MOUNTED EQUIPMENT</p>	<p>ISSUE DATE: 04/15/89</p>
	<p>1-39</p>	<p>REV. DATE: 12/07/16</p> <p>APPROVAL: N.SABBAH</p> <p>8509E83.DGN</p>

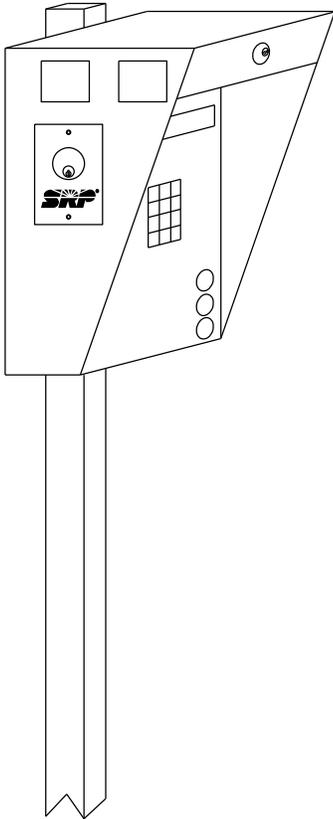


**NOTES**

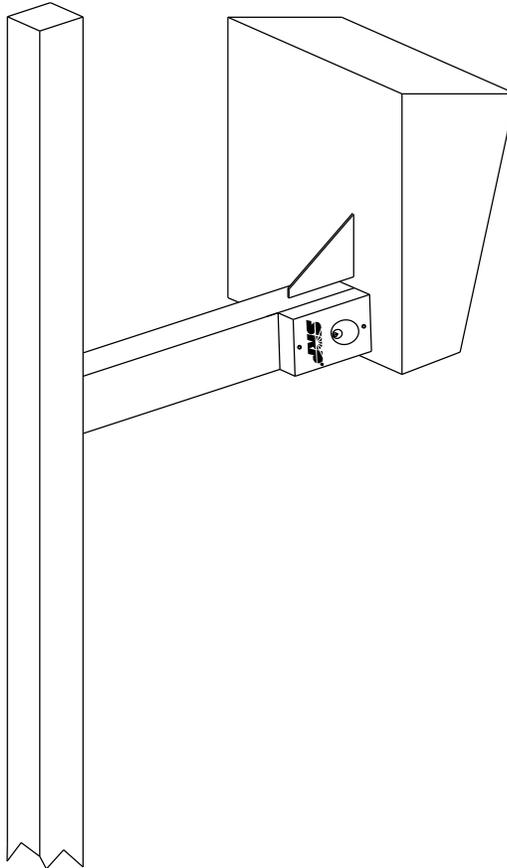
1. SRP requires the Customer to install a restricted access switch (RAS) on each existing or proposed main and guest electronic entry gate(s), and restricted electronic exit gate(s) that provide continuous 24-hour access.
2. RAS to be supplied by SRP and installed by the Customer. Customer to ensure the control circuit remains operational, which may include the installation of a replacement RAS.
3. SRP shall have final approval on all RAS locations. Preferred locations are the side of the gate entry system pedestal facing oncoming traffic, or behind the box as shown on page 1-41. For approval of non-standard installations due to the design of the pedestals, contact SRP at 602-236-8833.
4. The installation shall not impede the operation or placement of additional gate operation devices.
5. Refer to [www.srpnet.com/electricgate](http://www.srpnet.com/electricgate) for additional information.

<p>Electric Service Specifications</p> <p>PROPRIETARY MATERIAL</p>	<p>GENERAL INFORMATION RESTRICTED ACCESS SWITCH (RAS)</p> <p>1-40</p>	<p>PAGE 1 OF 2</p> <p>ISSUE DATE: 01/22/19</p> <p>REV. DATE:</p> <p>APPROVAL: N. Sabbah</p> <p>8509E379.DGN</p>
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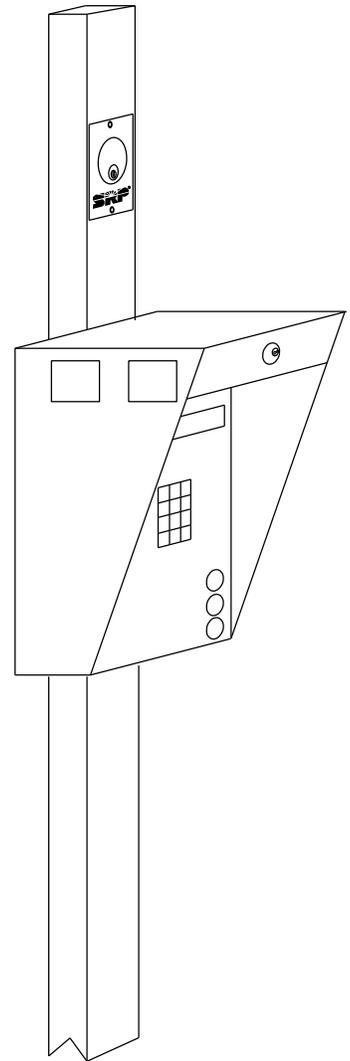
**EXAMPLE A**



**EXAMPLE B**



**EXAMPLE C**



**NOTE**

These are typical installations and are for illustrative purposes only.

<p>Electric Service Specifications</p>  <p>PROPRIETARY MATERIAL</p>	<p style="text-align: center;">GENERAL INFORMATION RESTRICTED ACCESS SWITCH (RAS)</p> <p style="text-align: center;">1-41</p>	<p style="text-align: right;">PAGE 2 OF 2</p> <p>ISSUE DATE: 01/22/19 REV. DATE: APPROVAL: N. Sabbah 8509E380.DGN</p>
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