Electric Service Specifications

LAST UPDATED: March 10, 2020

THIS MANUAL SUPERSEDES ALL PRIOR ISSUES AND REVISIONS
These SRP Electric Service Specifications are subject to update and modification at any time. Printed copies of this manual are provided as a courtesy, but may not include the most up-to-date standards, references, or requirements. To access current standards, please visit our website:

srpnet.com/electric/business/specs/ess.aspx

These standards are provided for general information only, and are based on assumptions and criteria that may not be appropriate for or applicable to every circumstance or electrical system. SRP encourages each user to consult with its own technical advisor concerning the applicability of these standards to the user’s specific situation. The user assumes all risk associated with the use of these standards.

SRP makes no representations or warranties, express or implied, with respect to any use of or reliance on these specifications. All representations and warranties are expressly disclaimed.

Submit questions, comments or suggestions to:

Policy, Procedures & Standards

Engineering_Standards@srpnet.com
POWER LINE SAFETY

OVERHEAD

Arizona Revised Statute 40-360.41-45 and OSHA 1910.333 specify clearances when working near overhead power lines. When planning such work, contact the utility responsible for the lines:

- APS……………………… (602) 371-7171
- City of Mesa……………….. (480) 644-2266
- SRP……………………… (602) 236-8888

If work is planned closer than allowed above, the utility must be contacted to arrange for the line/equipment to be guarded.

UNDERGROUND

To locate underground facilities before digging, call:

- National “One Call” Number…………………………811
- Blue Stake, within Maricopa County…….. (602) 263-1100
- Blue Stake, outside of Maricopa County… (800) 782-5348

Call at least two days, but not more than five working days, prior to excavating. The route of the located facilities will be marked as follows:

<table>
<thead>
<tr>
<th>Color</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Electric</td>
</tr>
<tr>
<td>Yellow</td>
<td>Gas</td>
</tr>
<tr>
<td>Orange</td>
<td>Communications</td>
</tr>
<tr>
<td>Green</td>
<td>Sewer</td>
</tr>
<tr>
<td>Blue</td>
<td>Water</td>
</tr>
<tr>
<td>Pink</td>
<td>Temporary Survey Markings</td>
</tr>
<tr>
<td>White</td>
<td>Proposed Excavations</td>
</tr>
<tr>
<td>Purple</td>
<td>Reclaimed Water</td>
</tr>
</tbody>
</table>

Locations are guaranteed to be within two feet on either side of the stake or mark. Depth will not be indicated. Excavation may occur within two feet of the stake or mark as long as it is accomplished in a careful and prudent manner.

Any exposed facilities must be protected from damage. If facilities should be accidentally damaged, leave them exposed and immediately contact the appropriate utility owner.
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ELECTRIC UTILITY COMPETITION/DEREGERULATION
CODE OF CONDUCT

The Arizona Electric Power Competition Act requires that public power companies establish, implement, monitor and improve a system of operations to prevent anti-competitive activities that could result from SRP providing both competitive and non-competitive services to retail electric Customers. A Code of Conduct was established that meets or exceeds the required elements of the Electric Power Competition Act.

The Code of Conduct as applied to the “wires” (non-competitive) portion of the business states:

1. No Customer will receive any preference or will be discriminated against in the provision of any non-competitive service because of the Customer’s choice of supplier for any competitive service.
2. SRP will plan, engineer, construct, operate and maintain its electric distribution system without regard for the commercial origin or ownership of the energy carried by the system. SRP will operate its electric distribution system on the basis of sound utility operating principles and without regard for the commercial origin or ownership of the energy carried by the system.
3. SRP will perform emergency restoration of electric service using sound utility operating principles and without regard for the commercial origin or ownership of the energy carried by the system.
4. SRP will have procedures to limit access to the identity of a Customer’s supplier of electricity, metering or billing services on a need-to-know basis.
5. SRP will apply its standards for distribution service equally to all similarly situated Customers, regardless of the Customer’s supplier of electricity, metering or billing services.
6. SRP will establish service standards for metering and billing services, which apply equally to all similarly situated Customers, regardless of the Customer’s supplier of electricity, metering and billing services.
7. SRP’s standards and procedures relating to noncompetitive services such as contributions-in-aid-of-construction, special facilities charges and service connections and terminations will preclude preferences or discrimination on the basis of the Customer’s choice of supplier of electricity, metering or billing.
8. In processing and resolving Customer complaints about distribution service, SRP will not discriminate against or grant any preference to any Customer due to the Customer’s choice of electricity, metering or billing service provider. SRP may, however, establish different, non-discriminatory, complaint procedures for handling different types of complaints.

The Electric Service Specifications (ESS) is designed to provide Customers and their engineers, architects and contractors with SRP’s general specifications required to obtain service. The ESS is the standard for proper Customer electric installations and connections to SRP’s electric system. It is not a complete set of rules governing the installation of electrical wiring and equipment, but does provide the Customer with SRP requirements. Application of these standards and SRP inspections based on these standards will be applied to all projects with no consideration to the Customer’s choice of electric service providers.
I. Purpose and Scope
A. The Electric Service Specifications (ESS) were created by SRP to present information and general specifications relative to the introduction and use of electricity supplied from its lines.

B. The information and specifications included in the ESS relate to conductors and equipment connecting SRP’s electricity supply system to customer premises, as well as other subjects associated with the supply of electricity that are of mutual interest to the customer, architect, engineer and electrical contractor. It is not a complete set of rules governing the installation of electrical wiring and equipment.

II. How to Use This Book
A. Revisions are indicated by red text or graphics.

B. Title blocks are used to hold information about the book, section, and standard and are located at the bottom of the page.
   1. “Approval” refers to the engineer responsible for that standard.
   2. “Issue Date” is when the standard was originally created.
   3. Revision Date (“Rev Date”) is the date the standard was last updated. Note that standards are reviewed periodically by the responsible engineer, and if no updates are necessary in that review, the Rev Date will remain unchanged.
   4. Revision statements are a summary of the changes made on the page and are located at the top of the title block.
   5. If a revision results in the complete removal of a diagram or an entire section of a diagram or a complete section of text, a brief explanation of the removal will be entered in the revision statement location of the title block.
   6. Revisions to formatting and corrections to typographical errors and/or page numbers will not be noted as a revision date change, however, it will be indicated in red and entered as a change in the Standards Revision Log.

C. Utilizing SRP Standards
   1. When utilizing SRP’s standards in design projects, modification of said standards is NOT permitted.
   2. Details or images may be extracted and used in design projects when they do not include the title block of the Standard and are not presented as a Standard.

III. Changes to Standards
These SRP Electric Service Specifications are subject to update and modification at any time. Printed copies of this manual are provided as a courtesy, but may not include the most up-to-date standards, references, or requirements.

To access current standards, visit our website: srpnet.com/electric/business/specs/ess.aspx
## IV. Contact Information

### A. Business and Residential

<table>
<thead>
<tr>
<th>Service</th>
<th>Description</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Emergencies</td>
<td><strong>NOTE:</strong> Call 9-1-1 first for medical emergencies</td>
<td>(602) 236-8811</td>
</tr>
<tr>
<td></td>
<td>Fallen Power Lines, Arcing, Electric Shock, Damage to SRP Facilities</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>General Information, Billing Inquiries, Power Outages, Maintenance of SRP Facilities, Temporary Disconnect from SRP Facilities</td>
<td>(602) 236-8888</td>
</tr>
<tr>
<td>Business Center</td>
<td>General Information, Billing Inquiries, Municipal Customers, Public Agency Customers, Inspections, Temporary Disconnect from SRP Facilities</td>
<td>(602) 236-8833</td>
</tr>
<tr>
<td>Spanish</td>
<td>La Linea – servicio en español</td>
<td>(602) 236-1111</td>
</tr>
<tr>
<td>SRP Water (Irrigation)</td>
<td>Emergencies, Water (Irrigation), Flooding, General Information, Billing Inquiries, Irrigation Orders, Schedule Time Inquiries</td>
<td>(602) 236-3333</td>
</tr>
<tr>
<td>Location of Underground Facilities</td>
<td>National “Call Before You Dig” Number (“One Call” Office)</td>
<td>811</td>
</tr>
<tr>
<td>Blue Stake</td>
<td>Within Maricopa County</td>
<td>(602) 263-1100</td>
</tr>
<tr>
<td></td>
<td>Outside of Maricopa County</td>
<td>(800) 782-5348</td>
</tr>
<tr>
<td>SRP EarthWise Solar Energy</td>
<td>Main Line</td>
<td>(602) 236-4448</td>
</tr>
<tr>
<td></td>
<td>Residential Photovoltaic</td>
<td>(602) 236-4661</td>
</tr>
<tr>
<td></td>
<td>Residential Solar Water Heaters</td>
<td>(602) 236-4662</td>
</tr>
<tr>
<td></td>
<td>Commercial Photovoltaic (Solar Initiatives)</td>
<td>(602) 236-4663</td>
</tr>
</tbody>
</table>

### B. Additional Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Records</td>
<td>Contract construction companies can request printing services online at <a href="http://srpnet.com/electric/business/graphicrequest.aspx">srpnet.com/electric/business/graphicrequest.aspx</a></td>
<td></td>
</tr>
<tr>
<td>Shop Drawings</td>
<td>Customers are required to supply shop drawings for service entrance sections with non-pre-approved meter pedestals (single or double), non-pre-approved 320 amps, and all 400 amps and above. Email <a href="mailto:shopdraw@srpnet.com">shopdraw@srpnet.com</a> (PDF files are preferred).</td>
<td></td>
</tr>
<tr>
<td>Standards-related questions</td>
<td>Email <a href="mailto:Engineering_Standards@srpnet.com">Engineering_Standards@srpnet.com</a></td>
<td></td>
</tr>
<tr>
<td>SRP's website</td>
<td><a href="http://srpnet.com">srpnet.com</a> Residential / Business Electric / Water assistance information.</td>
<td></td>
</tr>
</tbody>
</table>
V. Area Business Office Locations

East Valley Service Center..........................7050 E. University Dr., Mesa 85207
Project Administration Building..........................1500 N. Mill Ave., Tempe 85281
Pinal County Customer Service Center.............3735 E. Combs Rd., Queen Creek 85242
West Valley Service Center..................................221 N. 79th Ave., Tolleson 85353

VI. References

There are numerous documents and standards that were used in developing these guidelines. Many of these documents are modified and updated over time; the equipment of an interconnected generator shall conform to the most recent versions of these documents. A partial list of documents used is included below:

- Electric Utility Service Equipment Requirements Committee (EUSERC) Manual
- Institute of Electrical and Electronics Engineers (IEEE)
- International Building Code (IBC)
- National Electric Code (NEC)
- National Electrical Manufacturers Association (NEMA)
- National Electric Safety Code (NESC)
- Underwriter Laboratories (UL)
- Various state and municipal requirements